
Citrus Business Management Programme

Module 5 – part 1

**Manage your Business:
The Basics**

Learner Guide

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Directions

Unit Standard Information

Use the writing process to compose texts required in the business environment

SAQA US ID	UNIT STANDARD TITLE			
12153	Use the writing process to compose texts required in the business environment			
ORIGINATOR				
SGB GET/FET Language and Communication				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 04 - Communication Studies and Language			Language	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular-Fundamental	Level 4	NQF Level 04	5
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2015-07-01	2018-06-30	SAQA 10105/14
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2019-06-30		2022-06-30		

In all of the tables in this document, both the pre-2009 NQF Level and the NQF Level is shown. In the text (purpose statements, qualification rules, etc), any references to NQF Levels are to the pre-2009 levels unless specifically stated otherwise.

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

The purpose of the unit standard requires learners to follow a process in writing texts and reports required in business. It is intended to promote clear, unambiguous communication in plain language and to improve the quality of written reports and other texts that are specific to a business environment, require a particular format and may include specified legislated requirements. The unit standard enables learners to recognise and effectively use textual conventions and features specific to business texts.

The qualifying learner is capable of:

- using textual features and conventions specific to texts
- identifying the intended audience for the communication
- identifying the purpose of a text
- selecting the appropriate text type, format and layout for the purpose
- organising and structuring a technical text appropriately
- using appropriate grammar conventions
- drafting and editing a technical text
- recognising errors and checking for accuracy
- presenting the same information in different ways
- using plain language in business

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

There is open access to this unit standard. Learners should be competent in Communication at level 3.

UNIT STANDARD RANGE

The typical scope of this unit standard is:

- Texts specific to a particular function in a business context include sector specific documents; written comparisons of products; reports on specifics of cover; historical reviews over a period of cover; claims reports; explanations of how changes in legislation will impact on the rules of the fund or pension benefit; financial needs analyses; financial plans; reports to investors; reports to statutory bodies; customised insurance policies; statistical reports; actuarial reports; promotional proposals and other texts used within the sector and field of learning.
- The audience may be internal for use within an organisation or external for wider publication.
- Appropriate use of layout includes visual presentation, headings, bullets, numbering and other layout features, appropriate phrasing for headings, stem sentence and phrases match where bullets are used.
- Over complex syntax refers to long constructions and inappropriate use of the passive voice.
- Different ways of presenting the same information include text, graphs, tables, flow charts and diagrams.

Write/present/sign texts for a range of communicative contexts

SAQA US ID	UNIT STANDARD TITLE			
119465	Write/present/sign texts for a range of communicative contexts			
ORIGINATOR				
SGB GET/FET Language and Communication				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 04 - Communication Studies and Language			Language	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular-Fundamental	Level 3	NQF Level 03	5
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2015-07-01	2018-06-30	SAQA 10105/14
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2019-06-30		2022-06-30		

In all of the tables in this document, both the pre-2009 NQF Level and the NQF Level is shown. In the text (purpose statements, qualification rules, etc), any references to NQF Levels are to the pre-2009 levels unless specifically stated otherwise.

This unit standard replaces:

US ID	Unit Standard Title	Pre-2009 NQF Level	NQF Level	Credits	Replacement Status
8970	Write texts for a range of communicative contexts	Level 3	NQF Level 03	5	Complete

PURPOSE OF THE UNIT STANDARD

Learners at this level write/present/sign texts with complex subject matter and a need for various levels of formality in language and construction. They select text type, subject matter and language to suit specific audiences, purposes and contexts. Writers/signers can use linguistic structures and features to influence readers/their audience. They draft, redraft and edit own writing/signing to meet the demands of a range of text-types. They use language appropriate to the socio-cultural, learning or workplace/technical environment as required. They explore presentation techniques as an alternative to writing/signing own texts.

Learners credited with this unit standard are able to:

- Write/sign for a specified audience and purpose
- Use language structures and features to produce coherent and cohesive texts for a wide range of contexts
- Draft own writing/signing and edit to improve clarity and correctness

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

The credit calculation is based on the assumption that learners are already competent in terms of the following outcomes or areas of learning when starting to learn towards this unit standard: NQF Level 2 Unit Standard entitled Write/present/sign for a defined context.

UNIT STANDARD RANGE

Controls language patterns and structures and engages with context, purpose and audience.

Specific range statements are provided in the body of the unit standard where they apply to particular specific outcomes or assessment criteria.

Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts

SAQA US ID	UNIT STANDARD TITLE			
9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts			
ORIGINATOR				
SGB Math Literacy, Math, Math Sciences L 2 -4				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			SUBFIELD	
Field 10 - Physical, Mathematical, Computer and Life Sciences			Mathematical Sciences	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular-Fundamental	Level 4	NQF Level 04	4
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2015-07-01	2018-06-30	SAQA 10105/14
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2019-06-30		2022-06-30		

In all of the tables in this document, both the pre-2009 NQF Level and the NQF Level is shown. In the text (purpose statements, qualification rules, etc), any references to NQF Levels are to the pre-2009 levels unless specifically stated otherwise.

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

This unit standard is designed to provide credits towards the mathematical literacy requirements of the NQF at level 4. The essential purposes of the mathematical literacy requirements are that, as the learner progresses with confidence through the levels, the learner will grow in:

- An insightful use of mathematics in the management of the needs of everyday living to become a self-managing person.
- An understanding of mathematical applications that provides insight into the learner's present and future occupational experiences and so develop into a contributing worker.
- The ability to voice a critical sensitivity to the role of mathematics in a democratic society and so become a participating citizen.

People credited with this unit standard are able to:

- Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace
- Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three dimensional geometrical situations

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

The credit value is based on the assumption that people starting to learn towards this unit standard are competent in Mathematical Literacy and Communications at NQF level 3.

UNIT STANDARD RANGE

The scope of this unit standard includes length, surface area, volume, mass, speed ; ratio, proportion; making and justifying conjectures. Contexts relevant to the adult, the workplace and the country. More detailed range statements are provided for specific outcomes and assessment criteria as needed.

Using the Learner Guide

This learning material has been developed to assist the learner wishing to complete this unit standard. The guide contains all necessary learning to ensure that the learner will attain the competencies required by the unit standard.

The learner guide is accompanied by formative and summative portfolio of evidence (PoE) guides. Please ensure that you have access to these guides as well. The learner guide was designed to be used by a learner during the presentation of a skills programme based on the unit standard, and to be kept afterwards by the learner for reference purposes. The PoE guides were designed to be completed during and after the presentation of the skills programme, and forms part of the assessment process.

Background Information

The main theme of this module is to help entrepreneurs manage the day-to-day actions of their business.

The module will cover aspects such as:

- ❖ Business writing
- ❖ Spatial planning and measurement basics
- ❖ Resource mobilisation

❖ Action Plans

This module contributes to the exit level outcome and associated criteria:

4. Manage a new venture by applying business principles and techniques.

- 4.1 A business plan for a new venture is developed using strategic planning principles and techniques.
- 4.2 Guidelines for the implementation and monitoring the strategic action plan are formulated in terms of milestones and timeframes.
- 4.3 Financial management planning principles and techniques are applied in order to manage the business in an efficient and effective manner.
- 4.4 Production and / or operations management is applied in a chosen business opportunity.

This module comprises of 5 unit standards and attracts 22 credits, and is presented in two different study guides.

This module is aligned to unit standards:

Part 1	Business writing	12153	Use the writing process to compose texts required in the business environment	F	4	5
		119465	Write / present / sign texts for a range of communicative contexts	F	3	5
	Spatial planning and measurement basics	9016	Represent, analyse and calculate shape and motion in two- and three-dimensional space in different contexts	F	4	4
Part 2	Resource mobilisation	114590	Mobilise resources for a new venture	C	4	4
	Action plans	263534	Implement an action plan for a new venture	C	4	4

Learning Outcomes

This learner guide has the following learning outcomes:

Part 1 - Section 1 – Business Writing

1. Use textual features and conventions specific to business texts for effective writing.
 - 1.1. Texts specific to a particular function in a business environment are identified and an indication is given of industry specific and / or legislative requirements for each text.
 - 1.2. Texts specific to a particular function in a business environment are produced in response to defined requirements.
 - 1.3. The implications of not following the industry specific or legislative requirements for a specific type of text are explained and an indication is given of the possible consequences of non-compliance.
 - 1.4. Terminology and conventions specific to a particular function in a business environment are used appropriately.
2. Identify and collect information needed to write a text specific to a particular function.

- 2.1. The intended or incidental audience for whom the text is to be written, are identified for a specific field or subfield in order to focus the information needs.
- 2.2. The purpose of the text is identified within a specific field or sub-field and according to the information.
- 2.3. Questions are asked to help understand client needs and to focus information gathering.
- 2.4. Information required for the document is accessed from a variety of sources.
- 2.5. Information accessed is checked for accuracy, bias, stereotypes, and other offensive details.
- 2.6. The focus of the proposed text is defined and a decision is made about what information should be included or omitted in order to ensure the focus.
- 2.7. A checklist is created to facilitate reflection and editing.
3. Compose a text using plain language for a specific function.
 - 3.1. A format and structure is selected for the text that is appropriate for the intended audience and function.
 - 3.2. The main points to be included in the text are identified and the necessary supporting details are added.
 - 3.3. A first draft of the text is written that collates the necessary information in a rough framework.
4. Organise and structure a text appropriately for a business function.
 - 4.1. The first draft is checked to ensure that appropriate grammar has been used and where necessary the draft is rewritten in plain language using clear, accessible language that avoids over-complex syntax.
 - 4.2. Different ways of presenting the same information are considered and used where these enhance the meaning of the text.
 - 4.3. Technical or marketing terms and jargon are interpreted and rephrased in plain language or used appropriately in the correct context where the terminology is essential to the understanding of the text.
 - 4.4. All information is checked for accuracy and factual correctness.
 - 4.5. The document is organised to ensure that the sequence is logical and meaningful.
5. Present a written text for a particular function in a business environment.
 - 5.1. Text type, format, and layout are selected that are appropriate for the audience and purpose.
 - 5.2. Layout and formatting techniques are used correctly to enhance the readability of the text.
 - 5.3. Information in the document is evaluated in terms of its appropriateness for the intended audience and business function.
 - 5.4. The final draft is proofread to check that it is completely correct.
 - 5.5. The final copy is self-assessed using a rubric or checklist based on the requirements of the writing task and the items on the checklist created in the specific outcome to identify and collect information needed to write a text specific to a particular function.

1. Write / sign effectively and creatively on a range of topics.
 - 1.1. Imaginative texts are convincing and appropriate to the topic and purpose.
 - 1.2. Expository / factual texts are convincing and well developed with respect to clearly articulated transactional purposes, using fully developed paragraphs and resulting in a unified text.
 - 1.3. Writing / signing on personal interests is convincing in terms of issues and concerns addressed.
 - 1.4. The narrative voice or register chosen is appropriate to the context, purpose, and audience.
2. Choose language structures and features to suit communicative purposes.
 - 2.1. Points in the argument are logically and deliberately sequenced to build up to a convincing conclusion.
 - 2.2. Devices are employed to create particular rhythmic or tonal effects.
 - 2.3. Stylistic devices that enhance meaning are used effectively.
3. Edit writing / signing for fluency and unity.
 - 3.1. Text is checked for coherence, logical sequence and structure. Weaknesses and / or errors are identified and adjustments improve coherence and flow.
 - 3.2. Information is rearranged in ways that promote interest in, and impact of, the text for a defined purpose, target audience and context.
 - 3.3. Layout, spelling, punctuation, appropriate SASL structures (such as non-manual features) and syntax are checked for accuracy and readability. Major grammatical and linguistic errors are identified and changes made as required.
 - 3.4. The completed text is checked against the purposes of writing / presenting to verify that these purposes have been satisfied.

Part 1 - Section 2 – Spatial Planning and Measurement Basics

1. Measure, estimate, and calculate physical quantities in practical situations relevant to the adult.

Outcome range notes:

- ❖ Basic instruments to include those readily available such as rulers, measuring tapes, measuring cylinders or jugs, thermometers, spring or kitchen balances, watches, and clocks.
- ❖ In situations which necessitate it such as in the workplace, the use of more accurate instruments such as Vernier callipers, micrometre screws, stop watches and chemical balances.
- ❖ Quantities to estimate or measure to include length / distance, area, mass, time, speed acceleration and temperature.
- ❖ Distinctions between mass and weight, speed and acceleration.
- ❖ The quantities should range from the low or small to the high or large.
- ❖ Mass, volume temperature, distance, and speed values are used in practical situations relevant to the young adult or the workplace.
- ❖ Calculate heights and distances using Pythagoras' theorem.

- ❖ Calculate surface areas and volumes of right prisms (end faces are polygons and the remaining faces are rectangles) cylinders, cones and spheres from measurements in practical situations relevant to the adult or in the workplace.
 - 1.1. Scales on the measuring instruments are read correctly.
 - 1.2. Quantities are estimated to a tolerance justified in the context of the need.
 - 1.3. The appropriate instrument is chosen to measure a particular quantity.
 - 1.4. Quantities are measured correctly to within the least step of the instrument.
 - 1.5. Appropriate formulae are selected and used.
 - 1.6. Calculations are carried out correctly and the least steps of instruments used are taken into account when reporting final values.
 - 1.7. Symbols and units are used in accordance with SI conventions and as appropriate to the situation.
- 2. Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three-dimensional geometrical situations.

Outcome range notes:

- ❖ Applications taken from different contexts such as packaging, arts, building construction, dressmaking.
- ❖ The operation of simple linkages and mechanisms such as car jacks.
- ❖ Top, front and side views of objects are represented.
- ❖ Use rough sketches to interpret, represent and describe situations.
- ❖ The use of available technology (such as isometric paper, drawing instruments, software) to represent objects.
- ❖ Use and interpret scale drawings of plans (for example plans for houses or factories, and technical diagrams of simple mechanical household or work-related devices).
- ❖ Roadmaps relevant to the country.
- ❖ World maps.
- ❖ International time zones.
- ❖ The use of the Cartesian coordinate system in determining the location and describing relationships in at least two dimensions.
 - 2.1. Descriptions are based on a systematic analysis of the shapes and reflect the properties of the shapes accurately, clearly and completely.
 - 2.2. Descriptions include quantitative information appropriate to the situation and need.
 - 2.3. Three-dimensional objects are represented by top, front and side views.
 - 2.4. Different views are correctly assimilated to describe three-dimensional objects.
 - 2.5. Available and appropriate technology is used in producing and analysing representations.
 - 2.6. Relations of distance and positions between objects are analysed from different views.

- 2.7. Conjectures as appropriate to the situation, are based on well-planned investigations of geometrical properties.
- 2.8. Representations of the problems are consistent with and appropriate to the problem context. The problems are represented comprehensively and in mathematical terms.
- 2.9. Results are achieved through efficient and correct analysis and manipulation of representations.
- 2.10. Problem-solving methods are presented clearly, logically and in mathematical terms.
- 2.11. Reflections on the chosen problem-solving strategy reveal strengths and weaknesses of the strategy.
- 2.12. Alternative strategies to obtain the solution are identified and compared in terms of appropriateness and effectiveness.

Note that the following critical outcomes are also developed and assessed in an integrated manner, as part of this learning module:

1. Identifying
2. Collecting
3. Communicating
4. Science and Technology

Keep these learning goals in mind throughout your work related to this module.

There is an opportunity for self-assessment and a progress check at the end of this learner guide. Make time to assess yourself and ask the facilitator, assessor, your workplace mentor or coach for help if you are unsure of the answers.

Section 1: Business Writing

Learning Goals and Pathways

In order to start operating a business effectively, you will often be required to write business documents quickly and professionally.

This section will help you to work through the features and formats of business writing towards professionalism in every aspect of your business communications.

This section is presented in chapters 1-4 of the guide.

The learning goals for this module includes:

1. Use textual features and conventions specific to business texts for effective writing.
2. Identify and collect information needed to write a text specific to a particular function.
3. Compose a text using plain language for a specific function.
4. Organise and structure a text appropriately for a business function.
5. Present a written text for a particular function in a business environment.
4. Write / sign effectively and creatively on a range of topics.
5. Choose language structures and features to suit communicative purposes.
6. Edit writing / signing for fluency and unity.

Chapter 1

Features and Conventions of Business Writing

The Importance of Professionalism

Business today operates in a highly competitive arena in which knowledge and information are essential. Regardless of how advanced the available technology becomes, business documents are still written by people. For information contained in a business document to be of any value, it has to be read, understood and used. Badly written business documents could reflect negatively on your own professionalism and undermine your organisation's efforts in being perceived as a proficient business partner. It could also result in costly misunderstandings and hamper the efficiency of your organisation.

example

Examples of typical business documents you may prepare:

- Letters of application
- Letters of complaint or compliment
- Curriculum Vitae
- Reports
- Summaries
- Proposals
- Presentations
- Plans
- Emails

The first two documents produced by any professional are normally a curriculum vitae and a letter of application. Regardless of whether you use these documents to apply for a job, or whether you simply attach it to your organisational profile, these documents are of vital importance. They often represent the only opportunity you may have to make a good impression on strangers who may be of importance to your business.

Textual Features and Format of Business Letters

Use letters to communicate outside your organisation. Whilst the memorandum is the primary vehicle for communication within an organisation, letters are often used to communicate to individuals outside it, especially in formal and semi-formal contexts.

Letters are an essential part of all business and technical communication because they are more formal and reliable than electronic mail and more precise and permanent than telephone or face-to-face conversations.

Types of Letters

Like memoranda, letters perform many functions in scientific and technical communication. The following are some of the most common types of letters written by people in technical fields.

- ❖ Application letters
- ❖ Acceptance letters
- ❖ Inquiry letters
- ❖ Technical-information letters
- ❖ Letters of recommendation

Parts of a Business Letter

This resource is organised in the order in which you should write a business letter, starting with the sender's address if the letter is not written on a letterhead.

Sender's Address

The sender's address usually is included in the letterhead. If you are not using a letterhead, include the sender's address at the top of the letter, one line above the date. Do not write the sender's name or title, as it is included in the letter's closing. Include only the street address, city, and postal code.

Date

The date line is used to indicate the date the letter was written. However, if your letter is completed over a number of days, use the date it was finished in the date line.

Write out the month, day and year two inches from the top of the page. Depending which format you are using for your letter, either left justify the date or tab to the centre point and type the date.

Inside Address

The inside address is the recipient's address. It is always best to write to a specific individual at the firm to which you are writing. If you do not have the person's name, do some research by calling the company, or speaking with employees from the company. Include a personal title such as Ms., Mrs., Mr., or Dr. Follow a woman's preference in being addressed as Miss, Mrs., or Ms. If you are unsure of a woman's preference in being addressed, use Ms. If there is a possibility that the person to whom you are writing is a Dr. or has some other title, use that title. Usually, people will not mind being addressed by a higher title than they actually possess. For international addresses, type the name of the country in all-capital letters on the last line. The inside address begins one line below the sender's address or one inch below the date. It should be left justified, no matter which format you are using.

Salutation

Use the same name as the inside address, including the personal title. If you know the person and typically address them by their first name, it is acceptable to use only the first name in the salutation (for example Dear Lucy). In all other cases, however, use the personal title and surname followed by a colon. Leave one line blank after the salutation.

If you do not know a reader's gender, use a nonsexist salutation, such as their job title followed by the receiver's name. It is also acceptable to use the full name in a salutation if you cannot determine gender. For example, you might write Dear Chris Harmon: if you were unsure of Chris's gender.

Body

For block and modified block formats, single space and left justify each paragraph within the body of the letter. Leave a blank line between each paragraph. When writing a business letter, be careful to remember that conciseness is very important. In the first paragraph, consider a friendly opening and then a statement of the main point. The next paragraph should begin justifying the importance of the main point. In the next few paragraphs, continue justification with background information and supporting details. The closing paragraph should restate the purpose of the letter and, in some cases, request some type of action.

Closing

The closing begins at the same vertical point as your date and one line after the last body paragraph. Capitalise the first word only (for example "Thank you") and leave four lines between the closing and the sender's name for a signature. If a colon follows the salutation, a comma should follow the closing. Otherwise, there is no punctuation after the closing.

Enclosures

If you have enclosed any documents along with the letter, such as a résumé, you indicate this simply by typing "Enclosures" one line below the closing. As an option, you may list the name of each document you are including in the envelope. For instance, if you have included many documents and need to ensure that the recipient is aware of each document, it may be a good idea to list the names.

Typist Initials

Typist initials are used to indicate the person who typed the letter. If you typed the letter yourself, omit the typist initials.

A Note about Format and Font

Block Format

When writing business letters, you must pay special attention to the format and font used. The most common layout of a business letter is known as block

format. Using this format, the entire letter is left justified and single-spaced except for a double space between paragraphs.

Modified Block

Another widely utilised format is known as modified block format. In this type, the body of the letter and the sender's and recipient's addresses are left justified and single-spaced. However, for the date and closing, tab to the centre point and begin to type.

Semi-Block

The final, and least used, style is semi-block. It is much like the modified block style except that each paragraph is indented instead of left justified.

Keep in mind that different organisations have different format requirements for their professional communication. The format of your business letter may need to be flexible to reflect variables like letterheads and templates.

Font

Another important factor in the readability of a letter is the font. The generally accepted font is Times New Roman, size 12, although other fonts such as Arial may be used. When choosing a font, always consider your audience. If you are writing to a conservative company, you may want to use Times New Roman. However, if you are writing to a more liberal company, you have a little more freedom when choosing fonts.

Punctuation

Punctuation after the salutation and closing - use a colon (:) after the salutation (never a comma) and a comma (,) after the closing. In some circumstances, you may also use a less common format, known as open punctuation. For this style, punctuation is excluded after the salutation and the closing.

CVs and Covering Letters: Marketing Yourself

Your CV and covering letter is your chance to show an employer or potential funders the best of what you have got. It is about selling your skills and experience, and showing them you are the right person for the job.

How you write your CV and covering letter is up to you, but there are some basic rules to follow if you want to create the best impression.

Your CV is such an important document it is worth taking the time to get it right. When you start writing your CV all sorts of questions can come to mind, as you try to make it the best it can be. Here we answer some of the most common questions about CVs.

information

Textual features of a CV

- On average, an employer spends three to five minutes reading a CV.
- When you compile a CV make sure that it is clear yet simple and easy to read the layout.
- Emphasise the important facts about your employment history, your education and the skills that you can offer to a new firm.
- Refrain from writing long detailed paragraphs. Keep it short but informative.
- An employer wants to know how you can save time, save money and increase their workflow, in other words, what you can offer to them.
- Your CV should be no more than two pages long and have line spaces between each section.
- Print your CV on white A4 paper.
- It should be concise and easy to read.
- Your CV should be tailored to the job you are applying for, matching your skills and experience to the requirements of the job.
- The information in your CV should be correct and true. There is a difference between selling yourself and inventing things! Remember that people may use your CV to contact referees and find out more information about you. It is fraudulent to include false information in a CV.

Format Options

The answer to the question “which format should I use?”, is the format that suits your aims and shows you in the best light.

Different CV formats contain mainly the same information but worded in a different way, in different sections and in a different order. These might seem like small changes to make to your CV, but when employers have hundreds to sift through, every little improvement helps.

You can use different CV formats to:

- ❖ Draw attention to your strengths
- ❖ Target a specific job
- ❖ Get across your career aims – to change career or get a promotion

Bear in mind that in all CV formats the personal details, personal profile, and qualifications sections remain the same. It is your work history and achievements that change in each format.

How to Write a CV and Succeed in the South African Job Market

Start with the title: Curriculum Vitae followed by your name and your surname.

- ❖ Do not use any nicknames or photo's unless you are applying for a modelling or a sales position.
- ❖ Select an easy-to-read font like Tahoma or Arial.
- ❖ Do not use more than one font in your CV; rather create distinctions with **Bold** or by Underlining topics.

Information such as your gender, race, nationality, date of birth, driver's license, own transport, disability, languages, location, marital status, dependents and notice period should be reflected next.

Give a brief personal overview of yourself. Keep it short and sweet but informative. 5 lines of your key attributes and skills. This information must entice any employer to want to read further.

Work experience and your career history:

- ❖ Always start with your most recent position.
- ❖ Start with the company's name, your current position, date that you started at your current position and the reason for leaving. From there you start by listing your duties and responsibilities at each employer.
- ❖ Always list your achievements at a specific company.
- ❖ If you were contracted out to clients, list the client and the sub-client contracted to, as well as a brief description of projects that you were involved in.

Refrain from reasons for leaving such as career growth, greener pastures, better career opportunity, or received a better offer. Offers do not just randomly fall from the sky, so something had to entice you to go for an interview.

Scholastic education followed by your tertiary education, diplomas and certificates.

- ❖ Remember to start with your highest level and work yourself backwards from there.
- ❖ When listing your education start with the institute, qualification that you obtained and the year of your achievement.
- ❖ Always indicate if the qualification is completed or incomplete.
- ❖
- ❖
- ❖

example

Example of a CV

[Address, phone, email]

Curriculum Vitae of [Name & Surname]

Overview

[Brief personal overview - not more than 5 short catching sentences]

Personal

Information

Surname: [Your Surname]

Full Names: [Your Full Names]

Gender: [Male / Female]
Race: [Race]
Nationality: [Your Nationality]
Date of Birth: [Your Date of Birth]
Identity Number: [Your SA Identity Number]
Driver's License: [Your Driver's License]
Own Transport: [Yes/No]
Disability: [Disability]
Languages: [Languages]
Current Location: [Current Location]
Marital Status: [Marital Status]
Dependents: [Dependents]
Notice Period: [Notice Period]

Experience

[Dates] [Current Company Name] [City, Province]

- [Job Title / Position]
- [Job responsibility/achievement]
 - [Reason why you are in the market]

Education

[Dates] [School Name - Matriculated] [City, Province]

Matriculated

- [Special award, accomplishment, or degree minor]

Additional Courses

[Dates] [School / Instituted Name] [City, Province]

[Qualification]

- [Special award, accomplishment, or degree minor]

Skills Matrix

[Attach your skills matrix to your CV]

information

What to include in the skills section and how to draft a skills matrix

Skills are what you can do. Write a list of skills that you know you have or search online for the top 10 skills in demand. These could include teamwork, leadership, time management, communication, critical thinking, organisation, decision making, creativity, customer oriented, and adapting to change. Working with 10 skills narrows your focus so you can complete the task in a shorter period of time.

First, write down skills that you know you already have so that you can build your confidence. Then add skills that are highly recommended. Open a new spreadsheet or create a new table in a word document. Write the list of 10 skills in the leftmost column in the spreadsheet or table in the word document.

practical

Complete the following formative assessment:

F12153/119465.1 – Letter of Application

Chapter 2

Information to Include in a Business Document

Rhetorical Awareness and User-Centred Design

In the last twenty years, two important ideas have developed that help professionals compose effective workplace writing:

- ❖ Rhetorical awareness
- ❖ User-centred design (also known as the reader-centred approach)

information

There are two dominant ideas in professional writing that will help you produce persuasive, usable résumés, letters, memos, reports, and white papers.

This section outlines the concepts of rhetorical awareness and user-centred design. It provides examples of these ideas, and it contains a glossary of terms.

example

Examples of typical business documents where you may specifically need to apply careful information analysis and authoring principles to ensure that the documents are useful and professional:

- On the job training manuals
- Information pamphlets
- Business presentation documents or slides
- Business activity related posters

Rhetorical Awareness

The idea of rhetorical awareness for workplace writing includes the following concepts:

- ❖ Workplace writing is persuasive. For example, when a writer composes a résumé, the persuasive goal is to get a job interview. Similarly, a report writer may need to persuade a client to take action to improve work conditions ensuring employee safety and timely production.

- ❖ Workplace writing, since it is persuasive, must consider the rhetorical situation:
 - **Purpose:** Why the document is being written, the goals of the document.
 - **Audience:** Who will read the document, includes shadow readers or unintended audiences who might read your work.
 - **Stakeholders:** Who may be affected by the document or project.
 - **Context:** The background of and situation in which the document is created.

Through rhetorical awareness, professional communication has shifted from a genre-based approach, which focused on learning and reproducing forms or templates of documents, to thinking about the goals and situations surrounding the need to write. While professional writing still uses reports, white papers and such, authors should approach these texts considering the rhetorical situation rather than considering documents as isolated work.

User-Centred Design

The idea of user-centred design includes the following concepts:

- ❖ Always consider and think about your audience.
- ❖ Consider your readers based on:
 - **Expectations:** What information do your readers expect to get? What can be provided to your readers?
 - **Characteristics:** Who, specifically, is reading the work? Is the audience part of the decision-making process? Will stakeholders read the work? Or is the audience a mixture of decision makers, stakeholders, and shadow readers? What organisational positions does the audience hold and how might this affect document expectations?
 - **Goals:** What are your readers planning to accomplish? What should be included in your documents so that your readers get the information they need?
 - **Context:** For what type of situation do the readers need this information?
- ❖ Identify information readers will need and make that information easily accessible and understandable.
- ❖ User-centred documents must be usable, so consider how the document will be used rather than just how it will be read. The information must be easily accessible, so the author can find, read, and understand it to begin writing.
- ❖ Make your documents persuasive.

Creating Business Pamphlets

A pamphlet is an exceptional promotional tool for businesses, organisations, and initiatives that require complex explanations and involvement from the community. They are best used when your goal is to educate the public or a certain demographic. Organise, format and create your tri-fold pamphlet using these instructions.

Deciding What to Put in a Pamphlet

- Step 1** **Decide what your message is.** The strongest pamphlets are built around 1 idea, goal or issue. Too many goals will muddle the message to your readers.
- Step 2** **Add a short description of your organisation.**
- Step 3** **Choose a “Call to Action.”** Decide what the pamphlet encourages people to do, and make it easy for them to do this in 1 step.
- ❖ For example, a call to action may be to donate, “like you” on Facebook or email a member of parliament. Make this request short and strong.
 - ❖ Place the call to action on an inside page or inside panel.
- Step 4** **Remove jargon from your text.** Unless you have a highly specialised audience, you will want to make this pamphlet for the layman. Cut out clichés and industry-only phrases.
- Step 5** **Insert contact information.** The front is a good place for the website, while the back panel is a great place for address and map information.
- You can save an online map image of your location and place it on the back to help people find you. Make sure all the major streets and landmarks appear on the map.
- Step 6** **Break up text with images.** Separate your additional information into small excerpts of text that can be divided into the 6 panels in a tri-fold brochure.

Formatting the Pamphlet Information

- Step 1** **Grab a piece of computer paper.** Make a tri-fold and start testing out placement for your information. Ask each person who is working on it to make a sample pamphlet layout in order to share ideas about what should be on the front, inside and back.
- Step 2** **Place your logo on the front and back of the pamphlet.** You may even consider putting it on the inside. Make sure it is noticed when it is picked up.
- Step 3** **Make a headline for the front page and the inside.** The place where you put the largest text will train the reader’s eye to follow your message.

Step 4 Suggest fonts and formatting for each portion of text. The following are good guidelines for pamphlet design:

- ❖ Do not make the text less than 12-point. It will become hard to read.
- ❖ Use bold formatting and italics to highlight information.
- ❖ Do not use more than two fonts.
- ❖ Make sure those fonts are easy to read by printing out sample text in 12-point font.

Designing the Pamphlet

Step 1 Gather your images. Get digital copies of the image, so that you can use them as you make your pamphlet. There are several places you can find captivating images:

- ❖ Hire a professional photographer to take photos of your location, employees or cause. One hour of professional photography can be expensive, so shop around and hire based on what you can afford. Keep in mind that good photos will increase the effectiveness of a pamphlet.
- ❖ Find or buy clip art. Search Google or Bing images. Click on the image to see if it is open for use or must be purchased.

Step 2 Choose your pamphlet-making programme. There are also many options for this project.

- ❖ Microsoft Word allows you to make brochures within its Publishing layouts. Use a newer version of Word and click "File" and "New from Template." Choose the "Brochures" option in the "Publishing Layouts" tab.
- ❖ Graphic designers can turn your sample layout into a finished product using programs like Adobe or Illustrator. Either hire someone in-house or search for local graphic designers. Most professional designers keep a portfolio so that you can see their past work.

Step 3 Paste text into your template. You can also type your text from your sample layout if it is not currently on the computer. Be careful when copying and pasting from Microsoft Word into other programmes. You may want to save the text in a rich text format programme, such as Notepad or Text-Edit so that you can remove the formatting.

- ❖ Do not forget to include your contact information.
- ❖ Format your information using the Word formatting bars. Both programs are similar, using a top menu for formatting and a pop-out formatting panel. Click on a tab to see different formatting options.

Step 4 Scroll to the second page, if you are using Word to insert information on the inside of your brochure. The first page will include the front, back, and interior flap, while the second page will include the 3 inside panels.

Ask several people to proof your pamphlet. Spell check is not sufficient for a printed project. Ask other people who are involved to check for text and message errors.

- ❖ Print copies of the pamphlet on your own printer, as well as sending electronic files for proofing. You may see different mistakes when it is printed.

Print your pamphlet. You can print it at home with a two-sided printer. You can also upload the file to a local print store, such as Postnet, upload the file to an online printer or contract with a local printer.

- ❖ It is better to print using a professional printer if you are making a brochure for a business or professional organisation. Semi-gloss paper and higher resolution will create a product that people are more likely to save.
- ❖ You will need to choose the paper type, size, turnaround time and proof options when you print the pamphlet professionally.

Distribute your pamphlet. The value of your pamphlet is determined by how well you target your chosen demographic and distribute the information. Hire people to distribute it and ask local businesses to keep it on display.

example

EDUCATE YOURSELF

Now Available – 2 Books on APS Education
 1 – Comic type literature for young readers
 2 – Illustrator Scientific Documentation



TEST YOUR KNOWLEDGE

QUESTION 1

WHY IS A NERVELESS CRABBY BUG?

- a) it is born
- b) it is born
- c) it is born
- d) it is born

QUESTION 2

WHY CAN'T HE RESSIST TO CONVINCE OTHERS BY?

- a) it is born
- b) it is born
- c) it is born
- d) it is born

QUESTION 3

WHY ARE THEY FOUND IN OUR BODY?

- a) it is born
- b) it is born
- c) it is born
- d) it is born

QUESTION 4

WHY CHANGES CERTAIN CELLS IN OUR BODY TO THE OTHERS ARE CALLED.

- a) it is born
- b) it is born
- c) it is born
- d) it is born

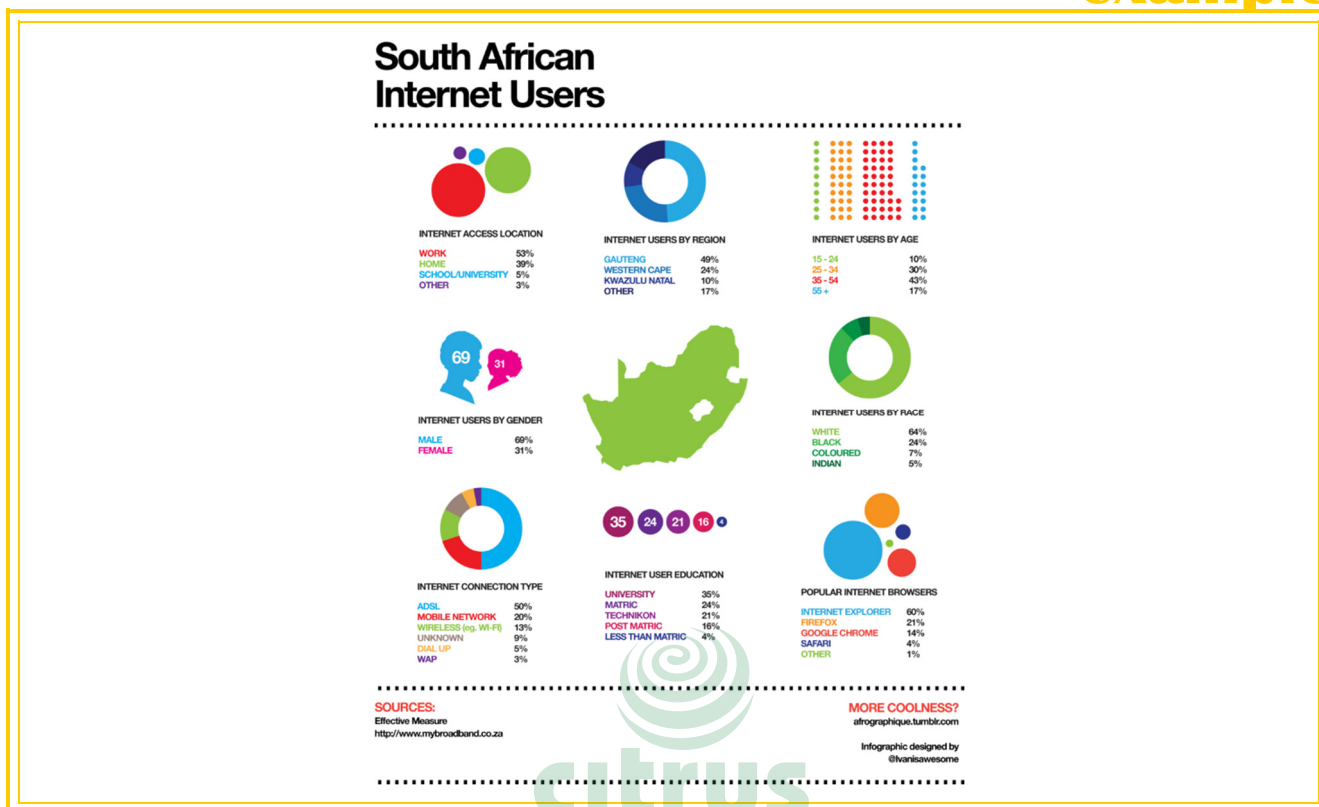
QUESTION 5

TO STOP OURS, IT IS IN THE BODY IN THE FORM OF THE BODY, BUT NOT THE BODY.

- a) it is born
- b) it is born
- c) it is born
- d) it is born

to order, VISIT
www.aps-education.co.za

example



Tips for Preparing Great Business Presentations

Presentations are mostly used by professionals, and they are a great way to convey ideas as well as educate and convince people. Giving a presentation is not an easy task. It requires substantial research, organisation, public speaking skills, and self-confidence. A good presenter has the ability to engage his or her listeners from beginning to end and compel them to take action. Those who wish to learn presentation skills can get training from expert presenters through classes or courses, or they can follow presentation tips that are available on the internet. Here are some great tips and tricks for effective presentations, as well as links to related websites.

Organising Your Presentation

- ❖ Choose an appropriate presentation structure: topical, chronological, classification by categories, problem and solution, or cause and effect.
- ❖ Divide the body of your presentation into three to five main points.
- ❖ The conclusion should include a summary of the main points of the presentation and leave the audience with something that is worth remembering and pondering.
- ❖ Include questions in your presentation, which should be asked once every 10 minutes to engage the audience.
- ❖ The final slide should contain a message thanking the audience, your contact details, and information about the availability of speaker notes, materials, and feedback tools.

Presentation Design

- ❖ Do not overload slides with a lot of text.
- ❖ Use the PowerPoint Notes to remind yourself what to say when a certain slide is being shown.
- ❖ Prepare a table of contents slide with the “summary slide” feature.
- ❖ Include a slide that shows your company logo.
- ❖ Arrange slides according to topics.
- ❖ Try to make the length of text lines similar throughout the slide.
- ❖ Recommended font for slide title is San Serif, and font size should be 44.
- ❖ Font size for subtitles should be 28 to 34, with bold font.
- ❖ Use dark font over a light background and light font over a dark background to enhance clarity.
- ❖ Use graphics only when appropriate.
- ❖ You can press “W” or “B” to clear the screen temporarily during your presentation, and resume the presentation by pressing “Enter”.
- ❖ Using Charts, Facts, and Statistics:
 - Use as few numbers as possible during your presentation, preferably, no more than 12 numbers, because they can cause confusion.
 - Try not to use more than one number in a sentence.
 - Round numbers up to the nearest whole number.
 - If you are showing sales statistics, you should concentrate on one market throughout your presentation.
 - Use a smaller font to cite sources for statistics.
 - Label all your charts clearly.
 - Use elements from drawing toolbar to create more attractive charts.
 - Numbers in charts can be difficult to view and understand.
 - Try to find ways other than columns and rows to present your data.
 - Take note that PowerPoint automatically deletes portions of charts imported from Excel, leaving only about 5 inches on the left.

practical

Complete the following formative assessment:

F12153/119465.2 – On the Job Training Pamphlet

Chapter 3

Electronic Communication in Business

Adapting Business Texts for Electronic Communications

Although internet usage has caused an increased trend of informal communication practices, it is still a wise idea to follow through on proper business email etiquette when contacting a colleague for professional purposes. Much like writing a formal business letter, your business emails should not include slang terms, text message abbreviations and other common insertions used in informal emails or instant messages. By following a few tips and guidelines, your emails will reflect your professionalism and let your credentials shine.

Business E-Mails

Developing effective business-to-business (B2B) email marketing messages is significantly different than developing business-to-consumer (B2C) emails.

Business people who receive email want to know the point as quickly as possible. They do not have time to read through a lot of copy unless something immediately captures their interest. They do not appreciate fluff and spin, just benefits and facts. Keeping this in mind, here are 20 rules for writing effective business email messages:

- ❖ **Be accurate.** Whatever claims you make, benefits you offer, or statistics you quote, make sure they are true and not inflated. Nothing is worse than starting off a relationship with exaggerated or even false information.
- ❖ **Be brief.** Your job with B2B email is to capture interest, then provide more information if it is wanted. You need to identify the most important benefit to the recipient and sum it up in a short paragraph. Think of it as the 30-second “elevator pitch” in email form.
- ❖ **Be clear.** Most business people are turned off by email messages with bad grammar, misspellings, and / or unintelligible content. If you personally struggle with writing, hiring a professional writer to prepare your messages is a worthwhile investment.
- ❖ **Be genuine.** Forget the hype that works with consumers. The B2B relationship is built on trust. Make sure everything you say conveys you are a genuine, upstanding, honest person running a reputable business.
- ❖ **Speak their language.** Whatever you are going to say, write it in words they understand and are comfortable with. Do not write down to them or above their comprehension level. People tend to understand and react better to words they use in everyday conversations.
- ❖ **Put yourself in their shoes.** Try to picture the daily routine of the people you are contacting and reflect that in your writing: “I know you are busy, so I will get right to the point.”
- ❖ **Watch out for a “knowledge gap.”** Do not assume recipients have the same knowledge about your product or service as you do. After you have captured

their interest and have reached the “additional information” stage, try offering a step-by-step walkthrough of whatever you are marketing to help them understand what you are trying to say.

- ❖ **Write business emails as letters, not as ads.** In the B2B world, a forthright communication in letter format is much more effective than an email that looks and smells like an ad.
- ❖ **Take your time.** As you would with B2C (and any other communication, for that matter), let your B2B email message sit for a day or two after you complete it. Show it to colleagues and other business people, and get their opinions. In almost every case, the passage of time and other people’s input will help you improve your messaging and writing.
- ❖ **Remember your email is likely to be passed around.** Because it is so easy for email to be forwarded, assume your message will be sent to others if the initial recipient has any interest. You may want to include links to information that is relevant to others, including technical details, operations info, and financial data.
- ❖ **Mimic your verbal presentation.** Although a lot of what you say in person may not be necessary or appropriate for an initial email, you should still consider how you verbally present your product or service, whether by phone or in person. Think about what points you stress (those could be underlined or bolded in your email) and the words you use (stick with verbal explanations that people understand).
- ❖ **Check your signature block.** Make sure it is complete: your full name, title, company, address, phones, pager, fax, email, and website links. Give the recipient a choice of how to contact you for more information.
- ❖ **Carefully choose when you actually send the mail.** Most business people spend Monday mornings catching up on the email, postal mail, and phone calls that have piled up since the previous Friday. You do not want your email mixed in with dozens or even hundreds of communications that are being reviewed by recipients.
- ❖ **Prepare your subject line carefully.** After the sender address, the subject line is the first thing B2B email recipients will look at. It is akin to what you might say on the phone in the first 5 to 10 seconds. The subject line should directly relate to the primary benefit your product or service offers.
- ❖ **Use graphics wisely.** Business people are interested in benefits, details, other customers, and so forth. Unless graphics enhance your message in a meaningful way, do not use them.
- ❖ **Make sure links within your email display and work properly.** When you list “for more information” links, make sure they are clickable so the recipient does not have to cut and paste. Also, make sure they go to the exact page you want and this landing page is up to date and provides the information you want them to have. Sending people to your home page and leaving them to figure out where to go is not a good idea.
- ❖ **Be wary about sending attachments.** Most of the time, you do not know what software the recipient has or what filter settings are enabled. Sending PDFs, Word documents, or Excel spreadsheets may not be a good idea since you do not know if the recipient can read, or even receive, what you send. A

better idea: links to web pages where the information contained in the attachments is displayed.

- ❖ **Test.** Just as you do with any consumer email campaign, test subject lines and message copy. Testing is no less critical with B2B emails.
- ❖ **Be complete.** Most B2B email recipients will form some sort of preliminary conclusion about your product or service before they respond to your email. They will determine for themselves whether your email helps meet their needs. That is why providing details and complete information is important – to give recipients the details they need to make the decision to call you or act on your offer.
- ❖ **Do not look like everyone else.** Spend some time reviewing B2B emails in order to see what others are doing. Get on the email lists of your competitors so you can see how they communicate. Analyse them all and find ways to differentiate yourself from the pack.

Steps in Preparing a Professional Email

- Step 1** **Label your emails with a professional subject line.** Make it pertinent to the topic of your email. Do not use simple sayings such as “For you” or “Please Read” in your subject line. This may result in your email being sorted to the junk mail folder. A professional subject line helps ensure your email’s recipient will read the email and not disregard it as miscellaneous junk or spam.
- Step 2** **Address the recipient by name, if possible.** If you do not know his or her name, look it up. Most companies have a website or a phone directory. Make every attempt to learn the name of the email’s recipient.
- Step 3** **Establish your identity and corporate affiliation.** Even if you and the recipient of your email have met before, it is always wise to include a business signature or other information to remind him who you are and where you work. It is a courtesy that lets them proceed to answering your email quickly, instead of having to look up who you are and how to contact you.
- Step 4** **Write the purpose of your email out clearly.** Propose any deals or relationships you hope to create as a result of the email. Provide any details necessary for the reader to make any decisions or take any actions. By including all information necessary, you help to expedite any deals made as a result of the email.
- Step 5** **Avoid slang or rambling within your email.** Just because text messages use abbreviations, that is not a reason to include them in your professional email. Your email should be concise. Not only is the reader a busy person, but he or she may be reading your email on a mobile device. A shorter, to-the-point email is much easier to read and respond to than a lengthy, confusing one.

practical

Complete the following formative assessment:

F12153/119465.3 – Email



Chapter 4

Business Texts for Business Functions – Summaries, Reports and Proposals

Preparation and Audience Analysis

In order to compose persuasive, user-centred communication, you should gather as much information as possible about the people reading your document. Your audience may consist of people who may have differing needs and expectations. In other words, you may have a complex audience in all the stages of your document's lifecycle – the development stage, the reading stage, and the action stage.

Development Stage

- ❖ Primary author (you)
- ❖ Secondary author (a technical expert within your organisation)
- ❖ Secondary author (a budget expert within your organisation)
- ❖ Gatekeeper (your supervisor)

Reading Stage

- ❖ Primary audience (decision maker, primary point of contact, project lead)
- ❖ Secondary audience (technical expert within audience's organisation)
- ❖ Shadow audience (others who may read your communication)

Action Stage

- ❖ Stakeholders (people who may read your communication, but more importantly, those who will be affected by the decisions based on the information you provide)
- ❖ Keep in mind that documents may not go through a clear, three-step process. Instead, the lifecycle of your communication may consist of overlapping stages of evolution. User-centred writing calls for close cooperation between those who are composing the documents, those who will read and act upon the documents, and those who will be affected by the actions.

Considerations in Organisation and Structure

In revising your business documents, begin with the "Higher Order Concerns" (HOCs). The HOCs are aspects of the writing most responsible for the content of the document. This section focuses on the following four main HOCs: Focus and purpose; audience; organisation and document design; development.

Focus and Purpose

Business writing is action-oriented, rhetorical, and user-centred. It aims to effect positive change, through both persuasive and informative strategies. It is essential that you have a clear understanding of the purpose of your document.

- ❖ What is your purpose in writing the document?
- ❖ What purpose should the document serve for your reader?
- ❖ Is your main point stated early in the document?
- ❖ What do you want your reader to do when s/he finishes reading the document?

Audience

For professional communication writing, it is very important to keep your audience in mind. Considering your audience will help you make a better argument.

- ❖ Have you done enough research about your audience and the organisation to which they belong?
- ❖ Is your document tailored to the needs of a specific audience (user-centred)?
- ❖ Are your tone and language appropriate for your audience?
- ❖ Will you have persuaded your reader by the end of the document?

Organisation and Document Design

Organisation

Effective organisation is crucial to the success of a business message. User-centred, logical presentation of your ideas makes the document professional. In addition, you need to organise your document so that your arguments are clear to the reader. Finally, your document's design (visual appearance) impacts the persuasiveness of the communication.

- ❖ Does your document begin by explaining your point and forecasting the communication's main ideas?
- ❖ Your introduction should answer these three questions from the perspective of the reader:
 - What is this?
 - Why am I getting it?
 - What do you want me to do?
- ❖ Does your communication proceed in a logical and organised way, moving from general to specific information?
- ❖ Is information arranged in order of importance to your audience?
- ❖ Is similar information kept together?
- ❖ Is each section organised around only one main idea?
- ❖ Do key sentences begin each paragraph?
- ❖ Ask others to read your document and explain your most important ideas.

Document Design

A clean, correct, and professional-looking document portrays you as professional. Effective document design increases the usability and persuasiveness of your communication and highlights important information, which helps busy readers.

- ❖ Does your document conform to the genre expectations of the document you are composing? (Résumé, cover letter, memo, report, etc.)
- ❖ Can your readers find information where they expect to see it?
- ❖ Are key points emphasised by using boldface, underlining, or italics?
- ❖ Do you have clear and specific headings?
- ❖ Is there any place where you can improve the readability of the document by using indentation or bullets?

Development

Anticipate that your audience will read your document carefully, questioning its validity and claims. Your document should be informative and persuasive, and yet concise enough not to waste your readers' time.

- ❖ Do you provide enough background information for the message?
- ❖ Have you included specific examples, numbers, dates, names, and percentages to support your claims?
- ❖ Do you have graphics (charts, graphs, diagrams, and tables) where appropriate?
- ❖ Have you eliminated unnecessary and / or obvious information to your audience?

Ask someone to read the document and comment if something is unclear and needs more description, explanation, or support.

Anticipate, also, that your audience may consist of many different readers. Each of these readers will have different needs. Your communication should be designed in a modular fashion so that different readers can find the information they need quickly and easily.

Summarising Information

In contrast to quoting directly, by summarising or paraphrasing an author's ideas you are able to present your interpretation of an author's ideas and to integrate them more fully into the structure of your writing.

Paraphrasing is generally used when you wish to refer to sentences or phrases in the source text. It is particularly useful when you are dealing with facts and definitions. Paraphrasing involves rewriting a short section from the source text in different words whilst keeping the same meaning.

Summarising is generally used when you wish to refer to ideas contained in a long text. Summarising enables you to reduce the author's ideas to key points in an outline of the discussion or argument by omitting unnecessary details and examples. Whether you summarise or paraphrase, you will still need to include a reference citing the source of the ideas you have referred to.

A Process for Paraphrasing and Summarising

Many people find the following process useful for summarising and paraphrasing information.

- Step 1** **Read the text carefully** - you may need to read the text several times and check the meaning of terms you do not understand in a dictionary.
- Step 2** **Identify and underline the key words** and main ideas in the text, and write these ideas down.
- Step 3** **Consider these points as a whole** and your purpose for using this information in relation to the structure of your assignment. You may be able to group the ideas under your own headings and arrange them in a different sequence to the original text.
- Step 4** **Think about the attitude of the author**, being critical, supportive, certain, uncertain. Think about appropriate reporting verbs you could use to describe this attitude.
- Step 5** **Think of words or phrases** which mean roughly the same as those in the original text. Remember, if the keywords are specialised vocabulary for the subject, they do not need to be changed.
- Step 6** Using your notes from the above steps, **draft your summary** or paraphrase.
- Step 7** When you have finished your draft **reread the original text** and compare it to your paraphrase or summary. You can then check that you have retained the meaning and attitude of the original text.

Using Synonyms

To paraphrase a text, you can use a variety of techniques, such as synonymous words, synonymous word forms, or synonymous phrases. For example, the text below has used synonymous word forms (scanners - scanner, use - using) (in **bold**), synonymous words (convert - recreates) (in ***bold italics***), and synonymous phrases (their “eyes” - the scanner eye) (in *italics*).

Changing Word Forms

A common approach to changing the word forms in a sentence is to change the main verb into a noun, or less commonly to change the main noun into a verb.

Re-Ordering Main Ideas

Another way of paraphrasing is to change the order of the main ideas in a sentence. One way of doing this is to change the active voice to passive voice or the passive voice to active voice. The active voice focuses on who or what is affected by a process

or event, whilst the passive voice focuses on the event or process. For example, compare the use of “scanners convert” and “the conversion of” in the examples above.

Business Reports

The purpose of a business report is to communicate information to assist in the business decision-making process. Some reports might propose solutions for business problems or might present relevant information to assist in the problem-solving process. A business plan is a kind of report which serves to communicate the business model, business management model and the commercial objectives of a business.

In general, when writing a business report the following steps have to be followed:

- ❖ Determining the scope of the report
- ❖ Understanding the target audience
- ❖ Research to collect supporting information
- ❖ Formatting and organising the report

Determining the Scope

In this step, the author has to determine the scope of the report. This process would involve what topics would be covered in the report and what elements are not necessary. This step would also help to determine how detailed the report would be.

Understanding Target Audience

A target audience or target group is the primary group of people that something is aimed at appealing to. A target audience can be people of a certain age group, gender, or marital status (for example teenagers, females, single people). A certain combination, like men from twenty to thirty, is often a target audience. Other groups, although not the main focus, may also be interested. Discovering the appropriate target market(s) to market a product or service to, is one of the most important stages involved with market research. Without knowing the target audience, a company's advertising and the selling efforts can become difficult and very expensive.

In this step, potential requirements of the readers have to be considered and the target audience has to be identified. Questions such as:

- ❖ Who will use the report?
- ❖ Educational level of the audience?
- ❖ Knowledge level of the reader?
- ❖ What is the reader expecting from this report?
- ❖ Personal demographics of the audience?
- ❖ What should be the level of technical complexity?

Collecting Information

In this step all previous reports, surveys and publications about the topic should be studied. A lot of reports would require some form of data collection. Many times investigative research might be needed. It is important that the process and methods

used for research are explained. Data which is collected during this process should be presented clearly in the report. Recommendations and proposed solutions have to be studied and reviewed in this process.

Formatting and Organising Content

This is usually the final step before actually writing a business report. In this step, the format of the report has to be decided. The following questions might arise during this step:

- ❖ How would the data be presented?
- ❖ What charts / diagrams will be used to complement the information presented in the report?
- ❖ How would the report be presented?
- ❖ What medium of presentation would be used?

Readers want to know the following from research / activity reports:

- ❖ Do I need to read your report? Does the title indicate a subject that is relevant to my responsibilities? Is the title accurate and descriptive? Does your report look interesting and readable?
- ❖ Give me a quick overview? Does your report have an executive summary so I can decide whether or not I need to read the whole thing?
- ❖ Why did you undertake this research / activity? Fill me in on the context and the background. Explain the relevance of your research / activity to our larger organisational goals.
- ❖ What purposes or accomplishments did you aim for? What were the major objectives and sub-objectives of your research / activity? What questions did you ask?
- ❖ What methods, processes, and procedures did you use? Because I and others may need to make decisions on the basis of information in your report, I expect to see a detailed description of what you did to obtain your results / findings. What obstacles and surprises did you encounter in the process?
- ❖ What are your results / findings? I do not want to know everything you know about your research / activity. I do want to know what you discovered / accomplished. I hope you have included negative as well as positive results, so I and many others can learn from your research / activity.
- ❖ How do you interpret your results / findings? Your facts are interesting and important, but they also require some heavy thinking to interpret. Do not leave all of the difficult, interpretive work to me. Give me tables, lists, charts, and / or graphs and point out the patterns in the data. Turn the data into information.
- ❖ What are the implications of your results / findings? What do your results / findings mean in terms of others' activities? Turn your information into knowledge. Go beyond your interpretation to explain the significance of these results / findings. Also, express the limitations of these results / findings.
- ❖ What follow-up research / activities do you recommend? Because you have studied and explored the context, the background, and the results / findings in some detail, I look to you to offer recommendations on related decisions and future research / activities.

Other types of business reports and their expected content are:

- ❖ Meeting reports
 - Group / date / place
 - Chart of follow-up actions and persons responsible by date
 - Those present (and those absent)
 - Agenda items
 - Discussion of each agenda item
 - Background
 - Discussion
 - Action plan
 - Next meeting and proposed agenda
 - Meta-message: "We make well-considered and important decisions." "This group accomplishes a lot."
- ❖ Progress reports
 - Projects completed
 - Final against plan (data)
 - Learning to be shared
 - Projects in process
 - Status against plan (data)
 - Issues / concerns
 - Recommendations / implications
 - Meta-message: "I add value to the organisation and am a learner / achiever."
- ❖ Research reports
 - Executive summary
 - Purpose / problem
 - Background
 - Research methods: design / activities / costs etc.
 - Research findings / results
 - Implications of these results
 - Conclusions / recommendations
 - Appendices (data, graphs, tables, and charts,)
 - Meta-message: "I follow good scientific methods. You can trust my work, which is reliable and valid and the foundation for sound decisions."
- ❖ Trip reports
 - Date of trip / destination
 - Purpose of the trip

- Background
- Details
- Who
- What
- Findings / results
- Implications
- Conclusions / recommendations
- Follow-up
- Attachments
- Meta-message: "I am a good investigator / ambassador."

The following books are recommended because of their highly practical nature and often because they include a wide range of information about this topic.

- ❖ The Elements of Business Writing (Gary Blake, Robert W. Bly)
- ❖ Business Grammar & Style Usage (Alicia Abell)
- ❖ Effective Business Writing (Maryann V Piotrowski)
- ❖ The Business Style Handbook (Helen Cunningham)
- ❖ The Elements of Style (William Strunk, E.B. White)

Business Proposals

The proposal is one mechanism for businesses to express their innovative ideas and obtain funding to develop their ideas into quality products and services.

A proposal is a document generated by a company to obtain funding from another organisation. While a business plan can be considered a proposal for the company as a whole, a proposal generally focuses on a specific opportunity for the business, whether it is a bid for a solicited job, or proposed research and development work.

While business people and innovators may come up with some great ideas, those ideas will simply languish unless they can be communicated in a way that gives them credibility. Proposals are one way that businesses can sell their ideas to organisations that will provide the business with funding. Proposals often have many of the same components as a business plan, just on a more focused level.

Proposals can be written in response to solicitations or grant announcements (requests for proposals, requests for quotations), or can be unsolicited. In other words, the organisation proactively approaches organisations that may have funding, rather than waiting for the announcement of a funding opportunity. Solicited proposals are generally more widely accepted because they respond to a need that the soliciting organisation has publicised.

Writing a Proposal

Like a business plan, a proposal requires a significant effort to:

- ❖ Effectively address the needs of the soliciting organisation.
- ❖ To clearly express the solution brought forth by the proposing business.

- ❖ To prove that the proposing business is the right person for the job.

A proposal should be written by a group of people within the organisation that meets the various needs of the project. This could include but is not limited to, project management, technical expertise, financial expertise, manufacturing and commercialisation (for product development), and legal counsel.

Proposal Contents

A quality proposal should include (but is not limited to):

- ❖ A detailed description of the work to be performed.
- ❖ Background of the problem to be solved (if applicable).
- ❖ A task-based work plan with schedules and milestones.
- ❖ A listing of key personnel, including résumés and descriptions of each person's responsibility within the proposed project.
- ❖ Summaries of relevant work performed in the past.
- ❖ Information about the company as a whole, showing why the business is the best choice for the job. Include general capabilities, facilities information (if applicable) and relevant assets.
- ❖ Information about consultants or subcontractors (if applicable).
- ❖ Financial information including overall budget, labour and material costs and other information specified in the solicitation.

Different solicitations will require different content to be included in the responding proposal. It is important to refer to the solicitation or to the point of contact for the exact requirements for each proposal.

Proposal Strategies

Business proposals must be highly competitive in a tight economy. Here are 3 elements that, if used wisely, can make a proposal rise to the top of the pile.

A business proposal should always include all the elements that are asked for in the Request for Proposal, formal or not. However, there are three things that should be considered for inclusion every time a proposal is written because each of them can improve – or detract from – the proposal's chances. These are:

- ❖ Testimonials
- ❖ Samples
- ❖ Graphics

These additional elements can enhance understanding of the information that is being presented and establish expertise or credibility, but they can also make a proposal seem unprofessional or overly glitzy. Do not write a proposal that relies on tricks alone to sell the business's services. Use these elements to enhance value, rather than distract from weaknesses in the business proposal.

Testimonials

Any company that has a track record in its field should not be afraid to ask for a written testimonial to include in future proposals. In fact, a good salesman will make asking for referrals and testimonials part of the sales process. If your clients are eager to help but unsure what to write, provide a draft and ask them to suggest changes before signing it.

Testimonials can be included as an appendix to a business proposal, or quotes from them can be placed in relevant sections of the text. One or two well-written testimonials will make your point better than a dozen gushing letters will. Remember to include the client's full name and company. Letters can be more easily faked if names are replaced with initials.

Nothing can solidify a small business reputation like a stack of client testimonials. Savvy consumers rarely make decisions without seeing what their peers think first.

Client testimonials are the cherry on the top of the marketing plan for a small or home business – the words of a satisfied client describing his or her experience. Consumers in the 21st century garner feedback from each other with unprecedented speed through social bookmarking (quick rating of web pages by users), online forums and reviews. Customer testimonials can be collected and used both online and offline to encourage a prospective client on the edge to make a decision to buy.

Types of Written Testimonials

Although containing the same general information, testimonials can be written down on paper or on a computer. Both have advantages to a word of mouth marketing campaign.

Paper testimonials are the oldest form of written testimonial. They can be hung on walls, kept in a "brag book" of work well done, or copied and handed out at lectures and presentations. There is a higher perceived value when a client takes the time to put their thoughts about a business on paper.

Internet testimonials are easier to receive and also easier to falsify. They can be emailed, collected on the business' own website, or written on third-party web pages such as helloworld.com. Internet testimonials will likely reach far more potential clients than paper testimonials.

Elements of a Client Testimonial

The most credible and compelling testimonials are very specific in their reasons for praising the business. Without specific reasons, it is not likely that the customer would write a letter of praise in the first place, and ideally, they include some of these elements:

- ❖ Full name of the customer
- ❖ City and province
- ❖ Date of the testimonial
- ❖ Client signature
- ❖ Problem the business overcame
- ❖ Example of excellent customer service
- ❖ "Before and after" pictures

- ❖ Amount of money customer was saved

The more elements a testimonial includes the more believable and interesting it is to potential clients.

Obtaining and Using Written Testimonials

It is never ethical to fake a testimonial, but there is nothing wrong with asking satisfied clients to write them. Unless asked, far more consumers will make a complaint about a business than will praise one in writing. A request can be general (for example adding the phrase, "If you are satisfied with your experience with us, please drop us a note and let us know" at the bottom of customer receipts or linking to the company's page on a popular review site) or specific ("John, would you be willing to write down how happy you are about your experience?"), but should not offer incentives, as they would dilute the credibility of the testimonial.

- ❖ Customer letters can be used extensively to market a business, especially online.
- ❖ One suggestion is to include a photograph of the client with the testimonial.
- ❖ Paper testimonials may be scanned in. These may be too large to gather together on a page, but the images can be linked to from the web version of the text.
- ❖ Testimonials on third party web pages can be distributed widely through the use of social bookmarking.
- ❖ Newsletters and e-zines should include a section devoted to customer letters.

Client testimonials strengthen a business reputation and build word of mouth referrals. Consumers understand the value of written recommendations in establishing credibility. Only an ethical businessman skilled at customer service will be able to acquire many written testimonials.

Samples

Providing samples of the business's work in the field can be the best way to show that the company understands the project, and is qualified to complete it. Samples establish clear levels of competency, enhancing credibility in those core areas. A caution about providing samples: if the business's best work in the field will not make it look good, nothing will doom its chances faster. To the discerning business customer, a lack of experience is preferable to a track record of subpar performance.

Graphics

Pictures are worth a thousand words, but leave out graphics that do not have something obvious to add to the proposal. Use illustrations if they will make explaining or proving something easier, but do not waste the client's time by asking him or her to wade through piles of graphs that do not demonstrate anything of interest. A properly designed chart or well-labelled schematic can tell a potential client at a glance if this proposal's going to make the cut. Cluttering up a proposal with charts that do not track

meaningful data, or do not have any clear basis for predictions, can cause clients to reach for the next proposal in the stack.

6 Tips for Writing Strong Business Proposals

Focus on benefits when responding to requests for proposals!

Putting together a business proposal for a large contract can seem intimidating or overwhelming, but if your company is right for the job it need not be.

Larger customers, like governmental departments and corporate divisions, often require business proposals in writing for long-term and complex contracts. A written business proposal must lay out, in detail, the steps the bidder expects to take to complete the project on time and under budget. Although the process may seem daunting, many businesses obtain the bulk of their work through business proposals.

When developing a business proposal, keep in mind that the following six tips will minimise the chances for any shortfalls that could lose the contract to a competitor.

- ❖ **Understand the job.** Is there a written request for proposals (RFP) available? This document should explain what the job entails. Restate the scope of the job in the introduction of the proposal so that the client knows right from the start that this bidder is clear on what is being asked.
- ❖ **Focus on the client.** What problem needs solving? For example, if the proposal is to provide group health insurance, the problem may be employee retention. Asking questions to confirm the problem may not be possible during bidding, so competitive intelligence may be required. The focus of the proposal should be on how the client's problem will be solved.
- ❖ **Make it personal.** If the above two points do not do it, then make sure that the business's, or owner's, passion comes across in the proposal. A personal connection can make a difference in which proposal is accepted.
- ❖ **Budget honestly.** Most small businesses are more able to compete on value than price. If lowering the bid hinges on expectations of additional work from the same source, consider such factors as likely volume and amount of work, and whether or not it would be billed at the same discounted price. It is often more effective to present a case why the quoted price is a better value. The client should know when a bid is unrealistically low.
- ❖ **Speak the language.** If technical jargon will get the point across most easily, by all means, use it but always write in the clearest language for the audience. Acronyms and scientific terminology will not make a proposal seem more qualified if the client does not understand the words. He or she is more likely to move to the one that is written plainly. Proofread it. Get as many sets of eyes to read the proposal as time will allow because typographical errors can sink a proposal that is otherwise worthy of consideration. Like résumés, business proposals pile up quickly in a competitive economy, and their reviewers are sometimes forced to make decisions on criteria such as correct spelling.

Regardless of its size or complexity, a business proposal at its core is a marketing piece, designed to pitch a specific package of services to a particular client. In many cases, the client will even tell you exactly what they would like to see by putting out an RFP (request for proposals). Use this document as a road map to writing a successful business proposal.

Instruction Manuals and User Guides

When a product's development starts, its planning consists of initial technical documentation, development, and testing and user documentation. Here we will discuss the user documentation task.

Questions to Ask

Even if you understand the technology behind a product, it is an entirely different task to write a "user manual" or "instruction guide" for it. You will first need to:

- ❖ Collect the relevant information
- ❖ Know for whom you are writing
- ❖ Know what is the purpose of writing the manual

Analysis

The first step is to analyse two important things, the audience, and the task. Firstly, determine the audience you are writing for.

- ❖ Are they novices?
- ❖ Do they have any knowledge about the product?
- ❖ Have they ever used a product like this one before?
- ❖ Are they familiar with the environment and terms used for the technology you are to explain to them?

In the task analysis, the writer has to know how the user will attempt to work with the product provided:

- ❖ Do they need procedures and exercises to perform functions?
- ❖ Are they interested in installing/assembling the system themselves?
- ❖ Do they want your company employees to do it for them?
- ❖ Do they want a training manual with each and every term defined?

The Language of Manuals

The following language and grammar rules apply to the writing of "user manuals" or "how-to" guides:

- ❖ Active voice is used.
- ❖ Avoid "he" and "she" - use "you" only.
- ❖ Do not over-use articles or passive voice.

Gathering Information

A user guide or instruction manual should contain the following information:

- ❖ What product are you writing about?
- ❖ Who are your readers (can they read?)

- ❖ What is the ultimate goal of the manual?
- ❖ How you are going to structure your manual (is the user guide going to be presented as part of the product packaging? attached to the product label? a separate page in the packaging? a CD? a link to a website?)– this will determine how long and detailed the guide should be)
- ❖ The product details. You have to know:
 - What are the warnings associated with the product or its use?
 - What are all the materials or elements or parts of the product that the user should find in the packaging?
 - What do the parts look like, or what are the parts called?
 - How to perform the task (of using the product, or assembling the product). List individual steps that must be taken, including illustrations and examples. If a step is lengthy, break it into sub-steps or create a flow chart.
 - What the final product should look like or what it should do (what is the final result).
 - What are the functions of the various parts of the product?
 - When is a function useful and when should a function be avoided?
 - Where can the user find assistance if he cannot get the product to function properly (help-line)?

Peer Review

It is important that you test the user guide on a group of people to determine whether your instructions can be followed to achieve the objective of the manual. You may have become so involved in the product that you did not realise that you did not give all the necessary facts to the user. Testing the manual will allow gaps in your explanations (and logic) to be identified. Also, peer review is important to check grammar and spelling.

Editing

After the peer review is completed, it is important to discuss the final result with the product developers. Are you using the product correctly? Will your manual give the right advice to the end user?

practical

Complete the following formative assessment:

F12153/119465.4 – Summary

Section 1: Self-Assessment and Progress Check

Use textual features and conventions specific to business texts for effective writing.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Texts specific to a particular function in a business environment are identified and an indication is given of industry specific and / or legislative requirements for each text.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Texts specific to a particular function in a business environment are produced in response to defined requirements.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The implications of not following the industry specific or legislative requirements for a specific type of text are explained and an indication is given of the possible consequences of non-compliance.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Terminology and conventions specific to a particular function in a business environment are used appropriately.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Identify and collect information needed to write a text specific to a particular function.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The intended or incidental audience for whom the text is to be written, are identified for a specific field or subfield in order to focus the information needs.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The purpose of the text is identified within a specific field or sub-field and according to the information.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Questions are asked to help understand client needs and to focus information gathering.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Information required for the document is accessed from a variety of sources.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment

Information accessed is checked for accuracy, bias, stereotypes, and other offensive details.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The focus of the proposed text is defined and a decision is made about what information should be included or omitted in order to ensure the focus.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
A checklist is created to facilitate reflection and editing.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Compose a text using plain language for a specific function.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
A format and structure is selected for the text that is appropriate for the intended audience and function.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The main points to be included in the text are identified and the necessary supporting details are added.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
A first draft of the text is written that collates the necessary information in a rough framework.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Organise and structure a text appropriately for a business function.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The first draft is checked to ensure that appropriate grammar has been used and where necessary the draft is rewritten in plain language using clear accessible language that avoids over-complex syntax.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Different ways of presenting the same information are considered and used where these enhance the meaning of the text.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Technical or marketing terms and jargon are interpreted and rephrased in plain language or used appropriately in the correct context where the terminology is essential to the understanding of the text.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment

All information is checked for accuracy and factual correctness.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The document is ordered to ensure that the sequence is logical and meaningful.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Present a written text for a particular function in a business environment.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Text type, format, and layout are selected that are appropriate for the audience and purpose.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Layout and formatting techniques are used correctly to enhance the readability of the text.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
Information in the document is evaluated in terms of its appropriateness for the intended audience and business function.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The final draft is proofread to check that it is completely correct.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment
The final copy is self-assessed using a rubric or checklist based on the requirements of the writing task and the items on the checklist created in the specific outcome: to identify and collect information needed to write a text specific to a particular function.	☐ I have the answer and am ready to start with assessment	☐ I am still not sure of this and am not ready to start assessment

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Shujaat, R. Delivering User Documentation: Steps to Deliver a Successful User Manual.
http://writingmanuals.suite101.com/article.cfm/delivering_user_documentation

Soltoff, P. Effective Business e-mails: <http://www.clickz.com/2208411>

Ward, T.P. 6 Tips for writing strong business proposals.
http://writingcorporatedocuments.suite101.com/article.cfm/6_tips_for_writing_strong_business_proposals

Ward, T.P. How to Write "How-to" Articles: Writing widely desired content of instructions, tips, and Tricks. http://writingmanuals.suite101.com/article.cfm/howto_articles#ixzz0RvCJ3MLE

Section 2: Spatial Planning and Measurement

Learning Goals and Pathways

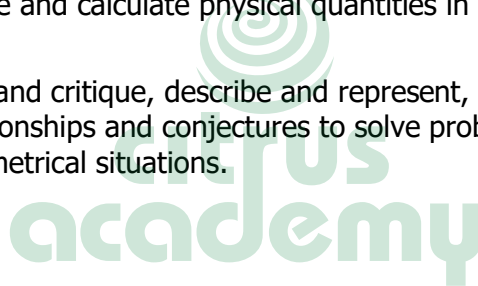
Part of agribusiness involves understanding spatial planning and measurement skills. This means that you need to be able to plan how to use space practically and optimally. In order to do this, you will need to understand how to move from two-dimensional shapes on paper (such as a blueprint or farm plan) to three-dimensional space (such as construction of dams or tanks and buildings.)

This section will help you to work through the basic geometry that you may need to lay out your farm, plan infrastructure development and establish orchards.

This section is presented in chapters 5-16 of the guide.

The learning goals for this module include:

1. Measure, estimate and calculate physical quantities in practical situations relevant to the adult.
2. Explore, analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three-dimensional geometrical situations.



Chapter 5

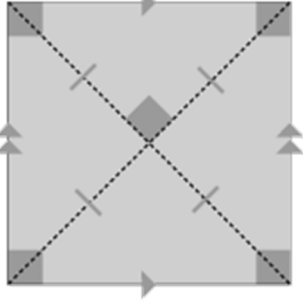
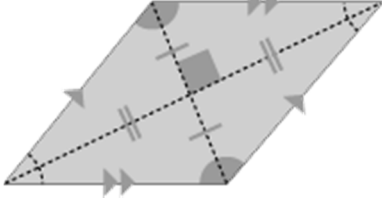
Two-Dimensional Shapes

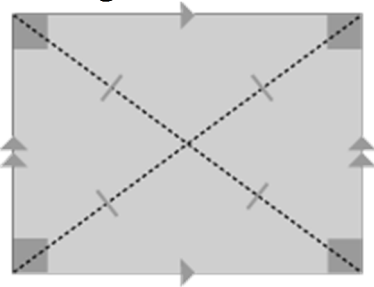
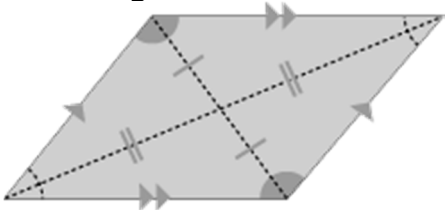
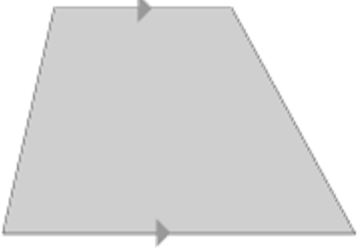
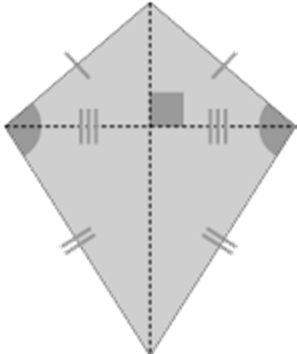
Introduction to Two-Dimensional Shapes

- ❖ Two-dimensional (2-D) shapes are flat. Architects draw 2-D shapes to see how a building will look from each side.
- ❖ Two-dimensional shapes are also called **quadrilaterals**.
- ❖ Quadrilaterals have four sides and four corners.
- ❖ There are different kinds of quadrilaterals, each with different properties.

Properties of Quadrilaterals

This table shows the properties of different kinds of quadrilaterals.

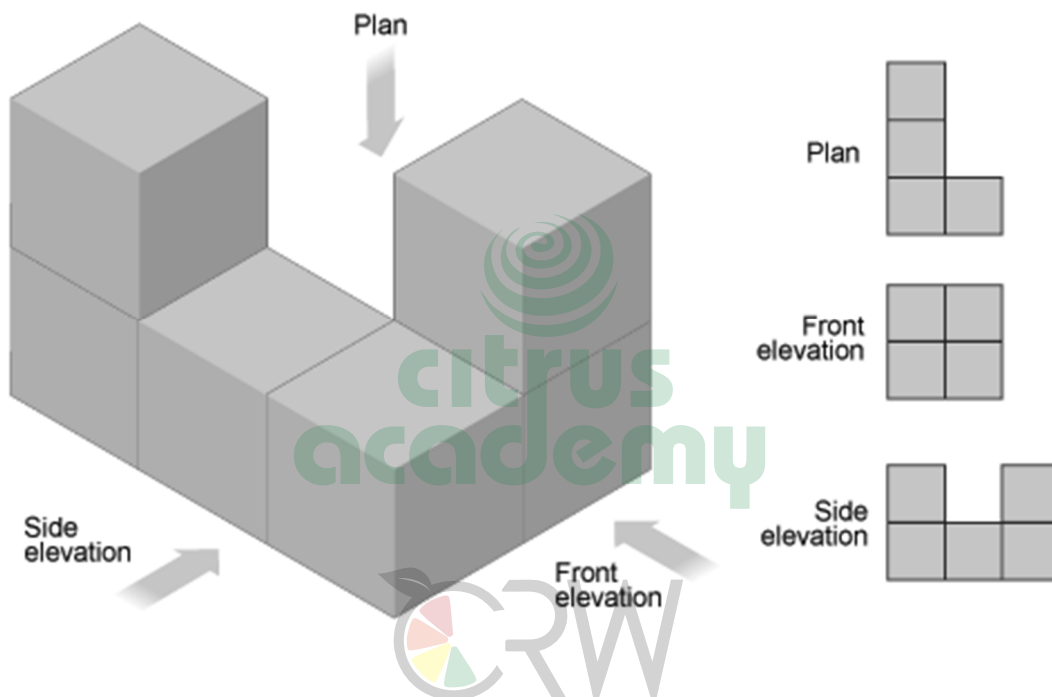
Quadrilateral	Properties
Square 	A square is a regular quadrilateral All angles are equal (90°) All sides are of equal length Opposite sides are parallel The diagonals bisect each other at 90° The diagonals are equal in length
Rhombus 	Diagonally opposite angles are equal All sides are of equal lengths Opposite sides are parallel The diagonals bisect each other at 90°

Quadrilateral	Properties
Rectangle 	All angles are equal (90°) Opposite sides are of equal length The diagonals are equal in length
Parallelogram 	Diagonally opposite angles are equal Opposite sides are of equal length Opposite sides are parallel The diagonals bisect each other
Trapezium 	One pair of opposite sides is parallel
Kite 	Two pairs of sides are of equal length One pair of diagonally opposite angles is equal Only one diagonal is bisected by the other The diagonals cross at 90°

Two-Dimensional Representations of Three-Dimensional Shapes

When architects design buildings they often sketch 2-D drawings to show what the building will look like from each side. These drawings are called plans and elevations.

- ❖ the view from the top is called the plan
- ❖ the view from the front and sides are called the elevations



Chapter 6

Three-Dimensional Shapes

Introduction to Three-Dimensional Shapes

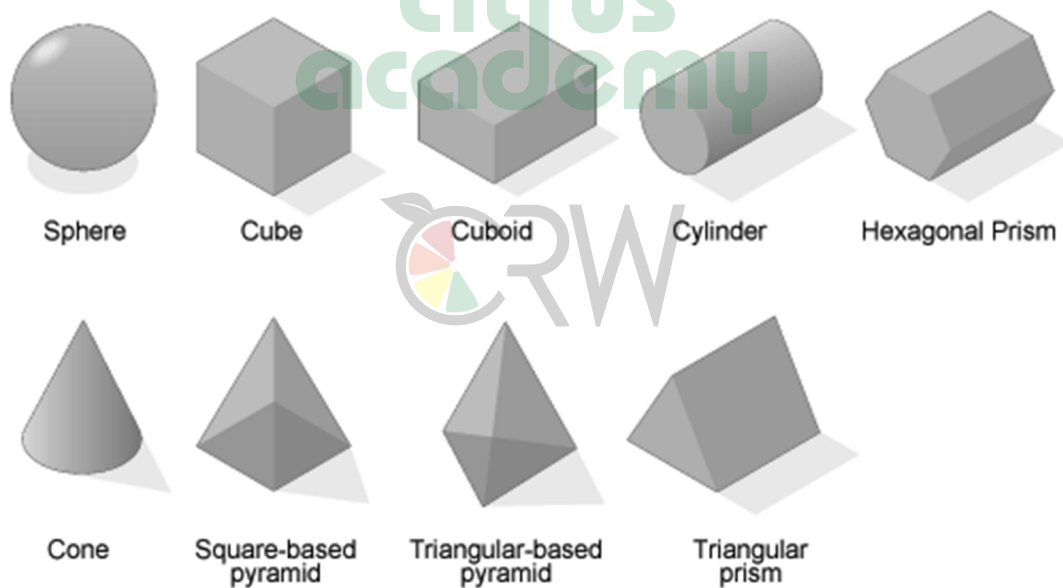
Three-dimensional (3D) shapes have 3 dimensions: length, width, and depth. Prisms have a constant cross section whereas pyramids have sloping sides that meet at a point.

In this chapter we will learn:

- ❖ The names of solid 3-D shapes
- ❖ How one uses “nets” in geometry to move from a two-dimensional shape on paper to a three-dimensional shape
- ❖ How to use isometric paper

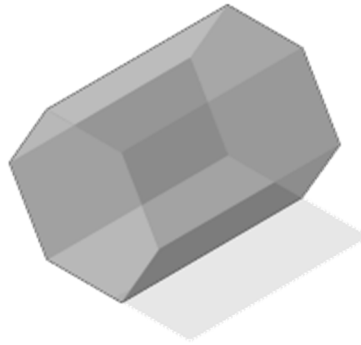
The Names of Solid 3-D Shapes

You should know the names of all the solids below.

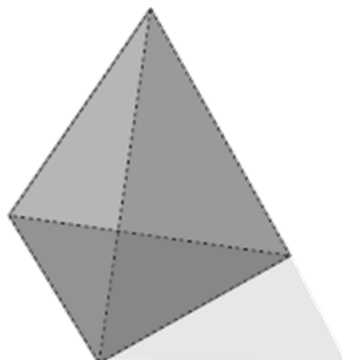
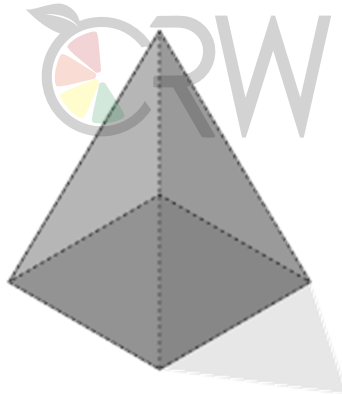


Prisms and Pyramids

A **prism** is a 3-D shape which has a constant cross section. Both ends of the solid are the same shape and anywhere you cut parallel to these ends gives you the same shape as well:



A **pyramid** has sloping sides that meet at a point:



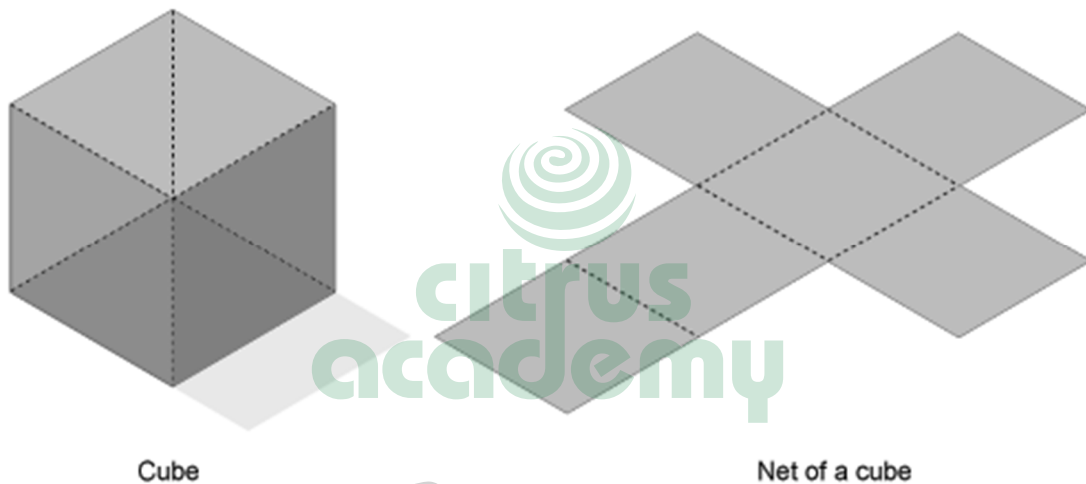
Using Geometric Nets to Move From a Two-Dimensional Shape to a Three-Dimensional Shape

Some 3-D shapes, like cubes and pyramids, can be opened out and unfolded into a flat shape. The unfolded shape is called the **net** of the solid.

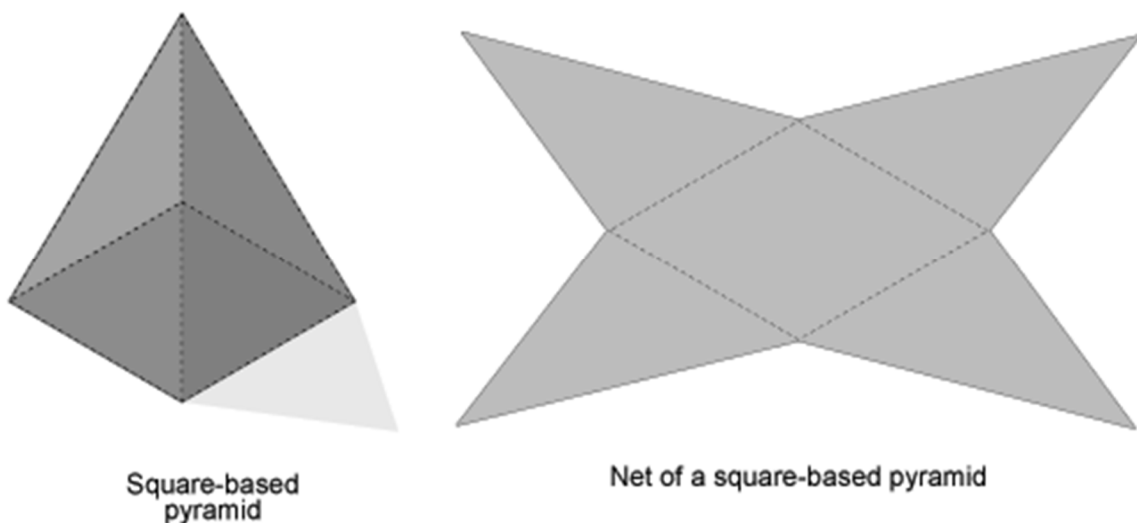
Here are some 3-D shapes and their nets.

3-D Shapes and Their Nets

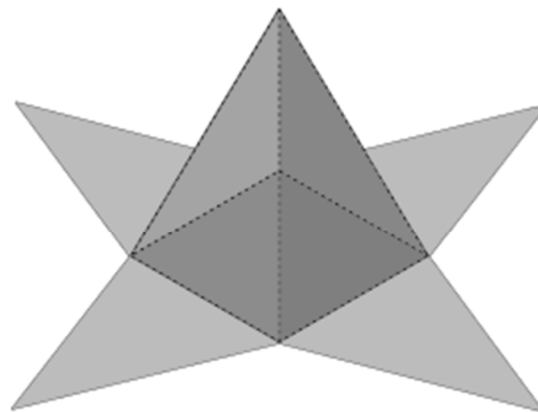
1. Cube and the net of cube.



2. Square-based pyramid and the net of square based pyramid.

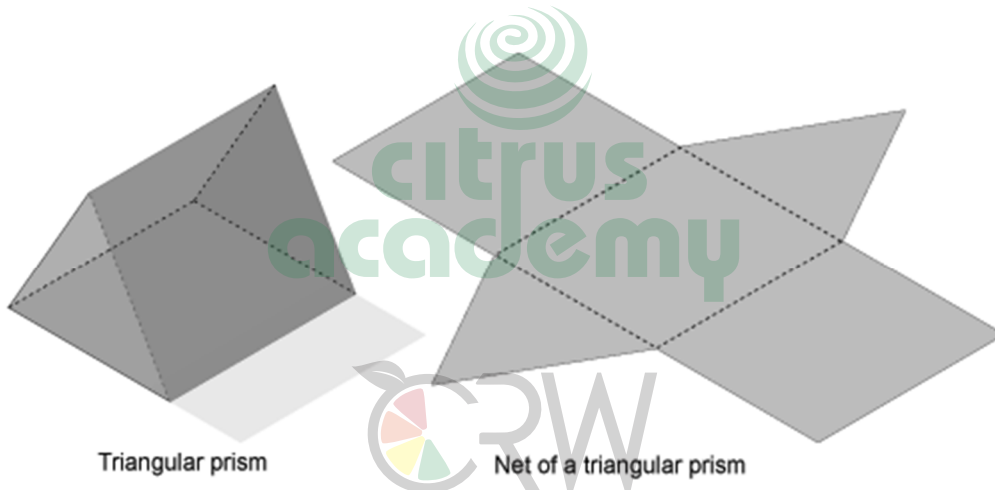


3. Net of a square based pyramid.



Net of a square-based pyramid

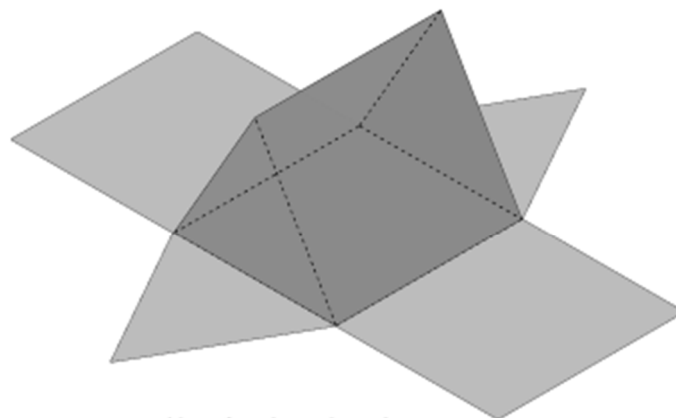
4. Triangular prism and the net of a triangular prism.



Triangular prism

Net of a triangular prism

5. Net of a triangular prism.

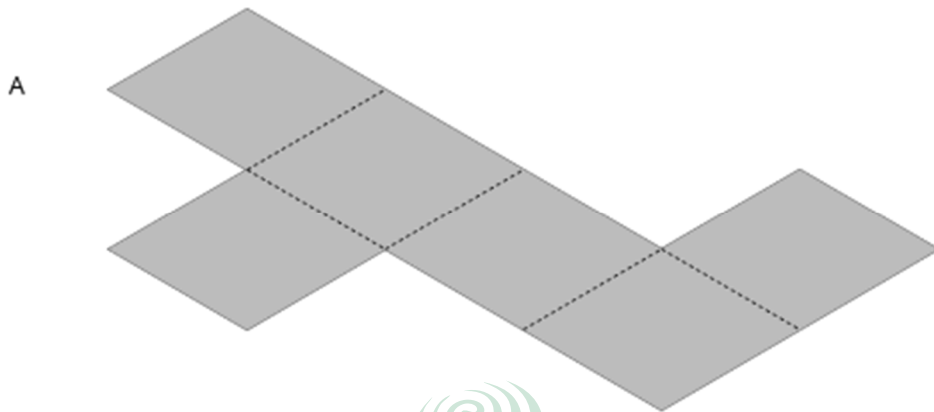


Net of a triangular prism

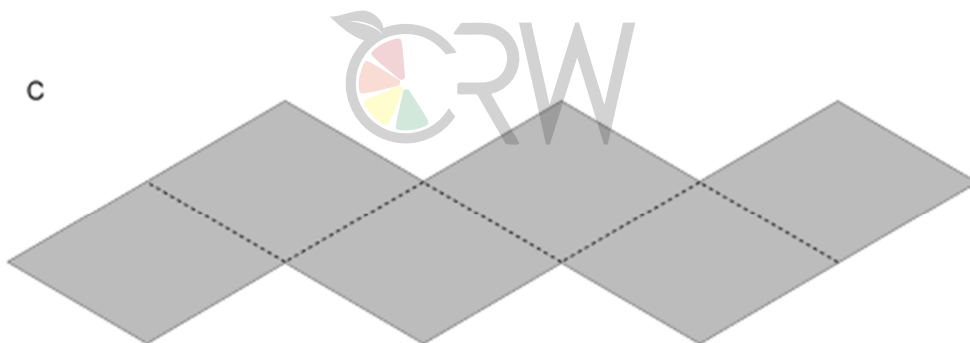
Getting Nets Right

A net has to be able to fold up into the 3-D shape. Look at these shapes. All of them are nets of a cuboid. See if you can determine why they would fold up into a cuboid.

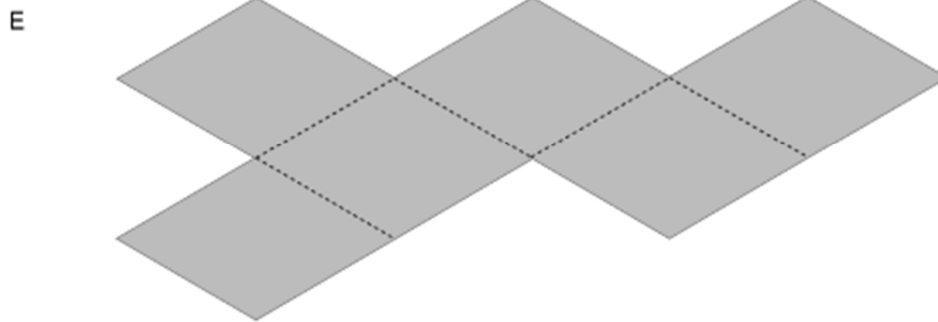
Nets of a cuboid:



Net of a cuboid (a).



Net of a cuboid (c).

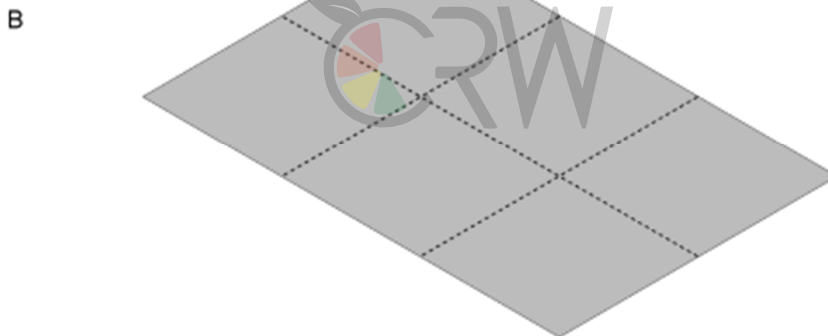


Net of a cuboid (e).

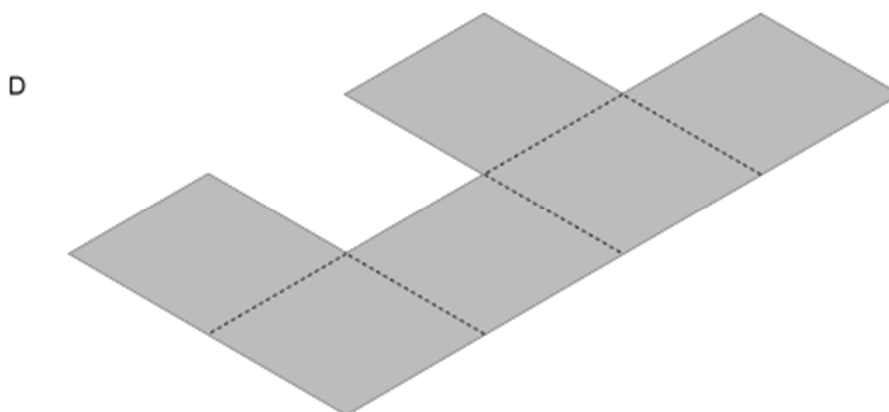
Getting Nets Wrong

Look at these shapes. They are not true nets. See if you can see why they **would not** fold up into a cube.

Untrue nets:



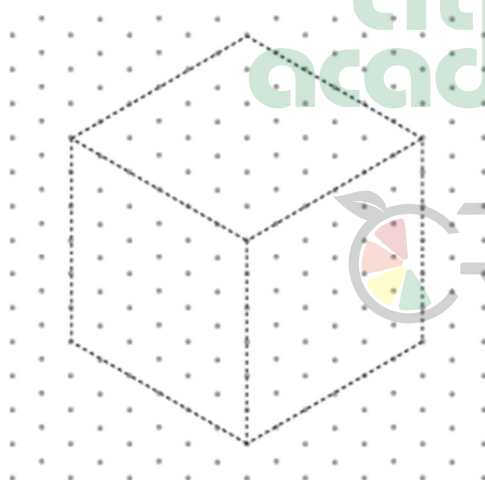
Net of a cuboid (b).



Net of a cuboid (d).

How to Use Isometric Paper

We can use isometric paper to draw 3-D shapes:



This 3cm × 3cm × 3cm cube has been drawn using the dots as guides. The vertical lines are always vertical, but the horizontal lines are drawn at angles.

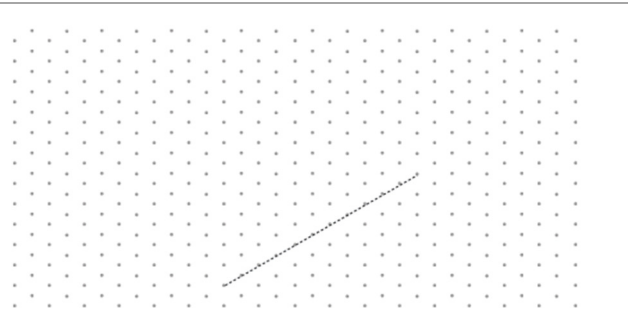
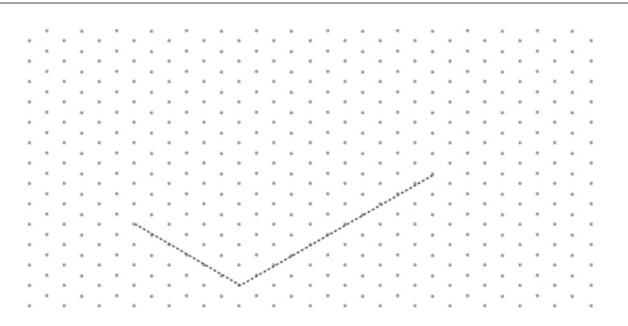
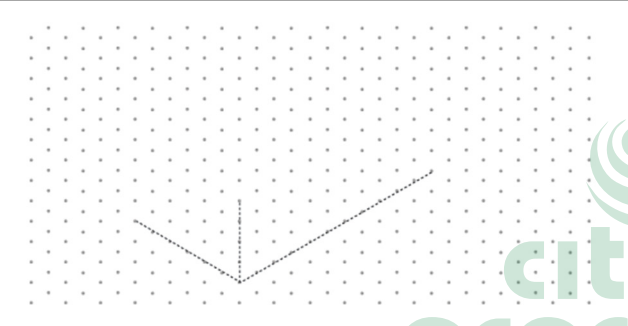
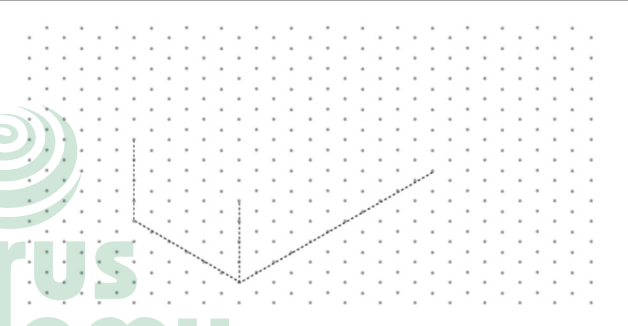
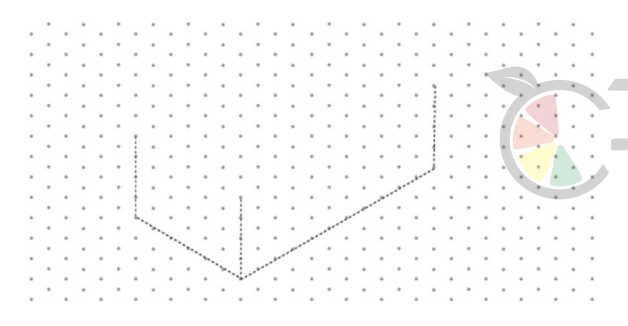
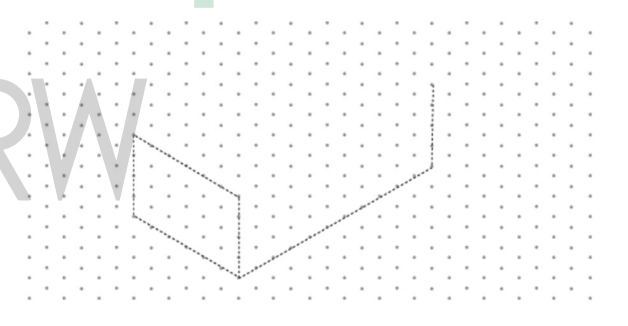
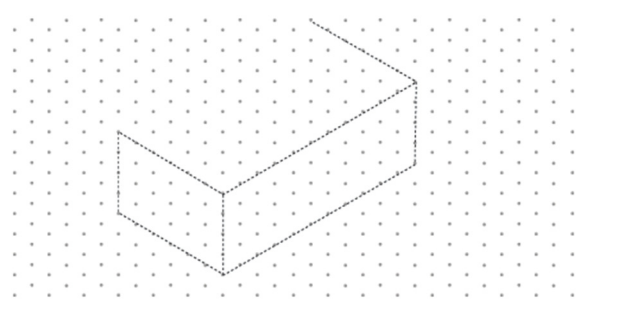
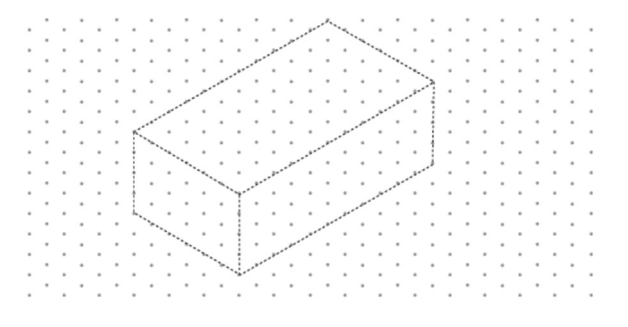
Get some isometric paper and try drawing the cube yourself.

example

How to draw a cuboid using isometric paper

Use isometric paper to draw a cuboid with a length of 6cm, a width of 3cm and a height of 2cm. Follow the steps shown below:

example

Step 1 	Step 2 
Step 3 	Step 4 
Step 5 	Step 6 
Step 7 	Step 8 

Chapter 7

Geometric Shape Transformations

Introduction to Shape Transformations

If a shape is transformed, its appearance is changed. This can be done in a number of ways, including translation, rotation, reflection and enlargement.

In this chapter we will discuss:

- ❖ Congruent shapes
- ❖ Translation
- ❖ Rotation
- ❖ Reflection
- ❖ Enlargement

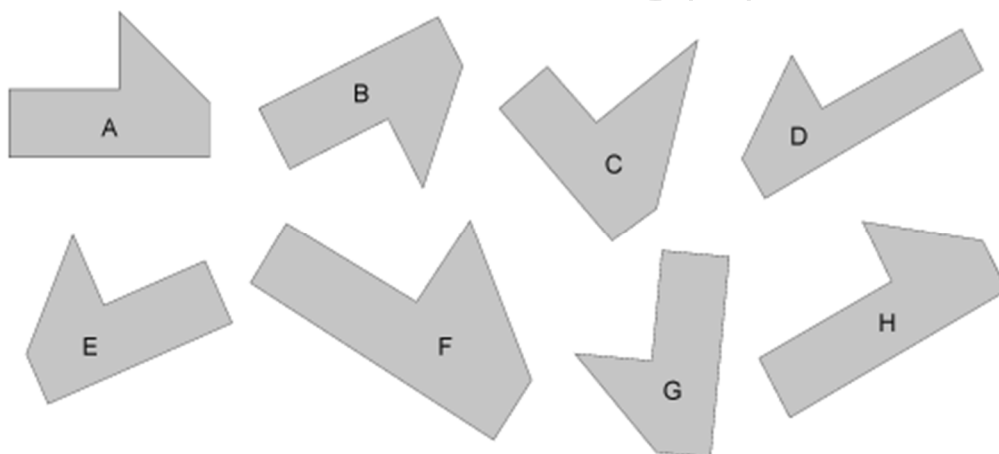
Congruent Shapes

Congruent means identical in **shape** and **size**. Shapes can be congruent even if one of them has been **rotated** or **reflected**.

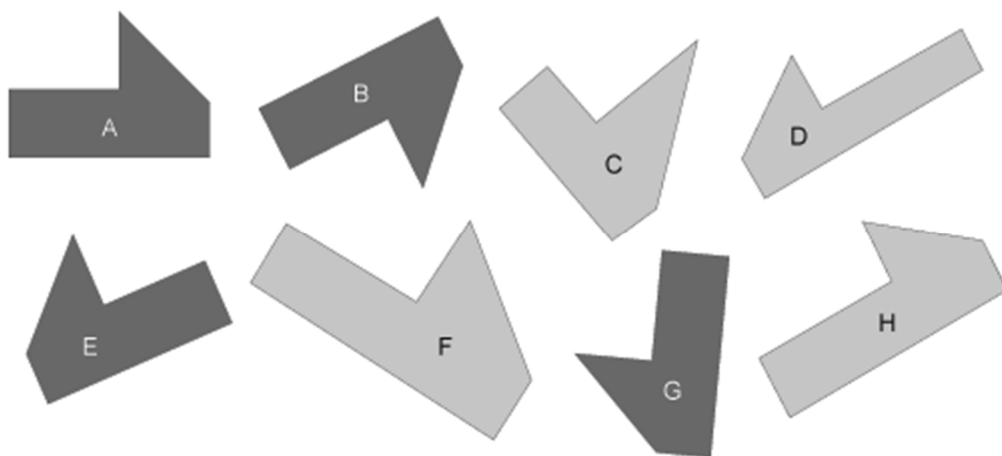
example

Identifying congruent shapes

Which shapes are congruent?



example



Shapes A, B, E, and G are congruent.

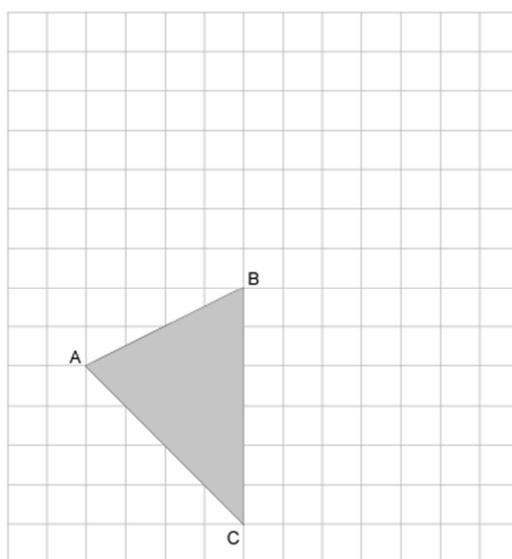
Translation

To translate a shape, you can move it **up** or **down** or from **side to side**, but do not change its appearance in any other way.

When a shape is translated, each of the vertices (corners) must be moved in exactly the same way.

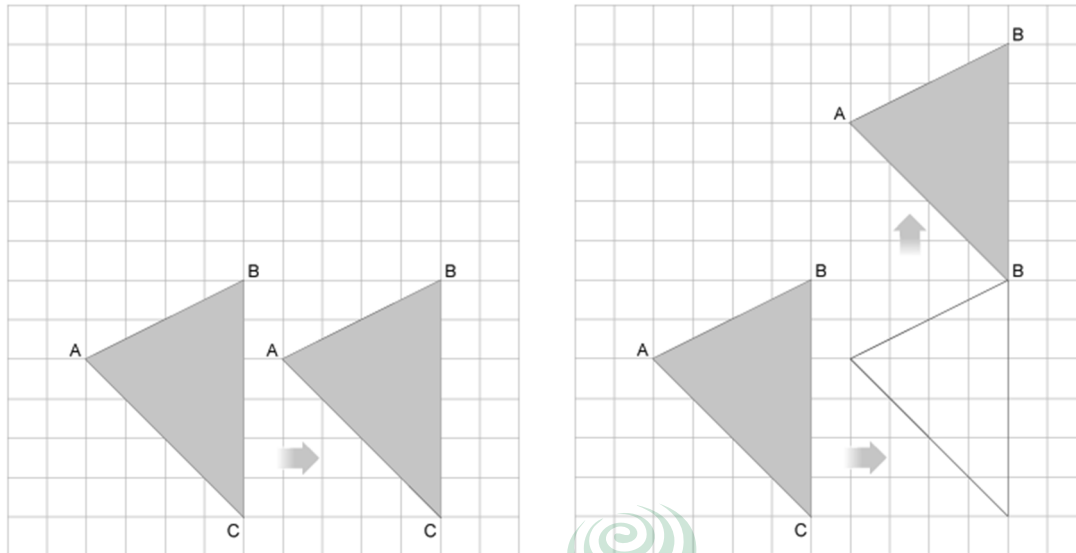
example

Translating a shape



example

Static shape



Shape is translated up

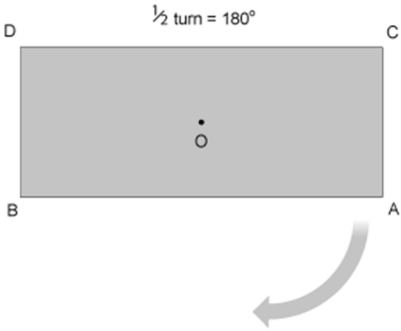
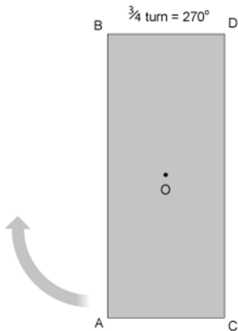
Rotation

If you put a piece of paper on a table and place your pen in the middle of it, you can rotate the paper whilst keeping the pen in a fixed position.

In doing this you are rotating the paper about its **centre**.

Rotating from Centre

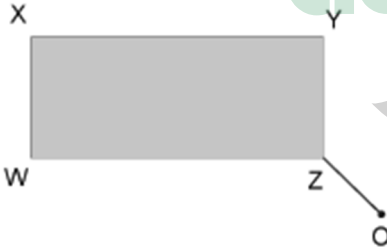
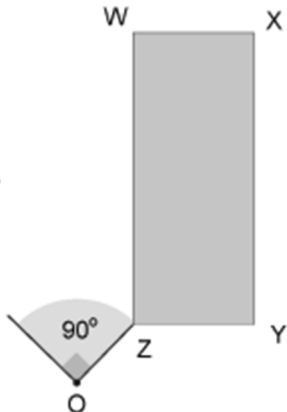
Static sheet of paper with no rotation	90-degree rotation, a quarter turn

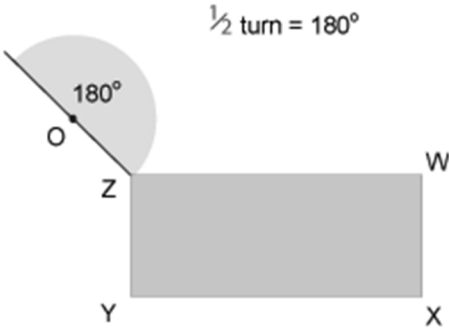
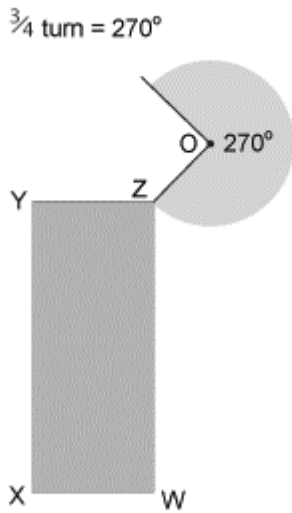
 $\frac{1}{2}$ turn = 180°	 $\frac{3}{4}$ turn = 270°
180-degree rotation, a half turn	270-degree rotation, a three-quarter turn

A full rotation (360°) of the paper will result in the paper being back in its original position.

In both the above examples the centre of rotation was the centre of the rectangle, but what happens when the centre of rotation is outside the rectangle?

Rotating from a Centre outside the Shape

	 $\frac{1}{4}$ turn = 90°
A rectangle with a point of rotation outside of the shape.	A quarter turn, 90 degrees

	
A half turn, 180 degrees	A three-quarter turn, 270 degrees

Reflection

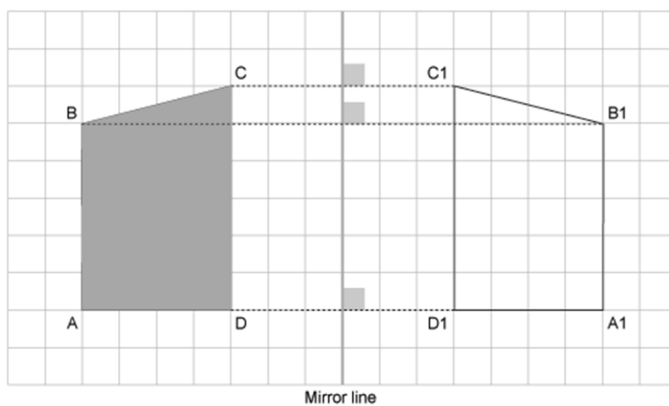
If you look in a mirror, you see your own image. You (the object) and your image appear to be the same distance from the mirror.

An object and its image are always the same perpendicular distance from the mirror line. Perpendicular means “at right-angles to”.

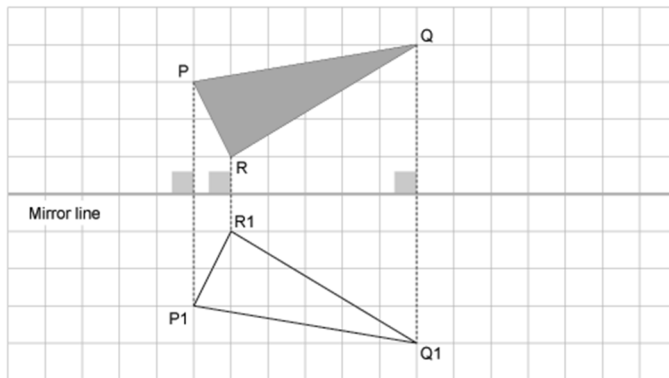
example

Reflection

Look at the following examples:



example



Each point and its image are the same distance from the mirror line.

Enlargement

The size of an enlargement is described by its scale factor. The position of the enlarged shape is described by the centre of enlargement.

- ❖ Scale factor enlargement
- ❖ Centre of enlargement
- ❖ Fractional scale factor

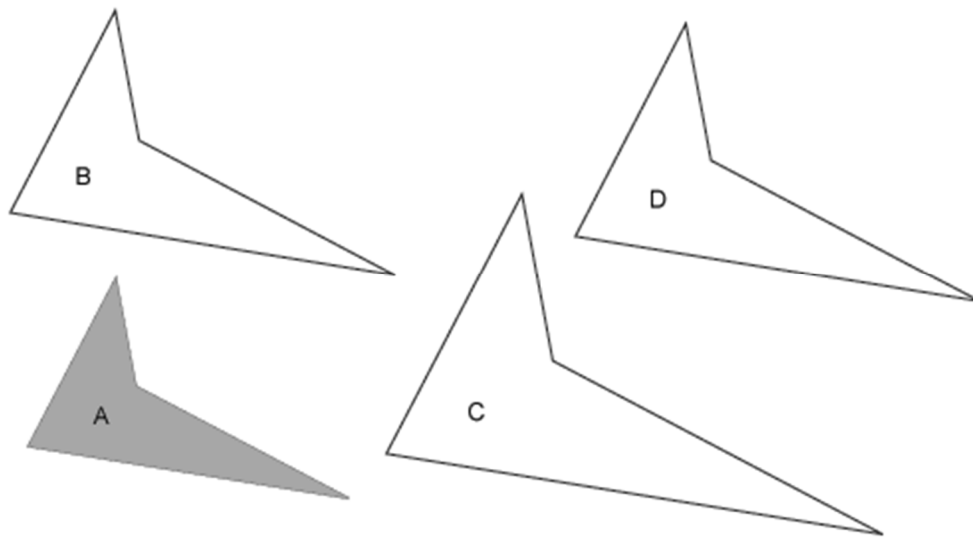
Scale Factor Enlargement

example

Enlargement

Shapes B, C, and D are all enlargements of shape A. However, they are all different sizes and in different positions on the screen.

example



When describing enlargements you must state their size and their position.

Scale Factor

The size of an enlargement is described by its scale factor.

For example, a scale factor of 2 means that the new shape is twice the size of the original. A scale factor of 3 means that the new shape is three times the size of the original.

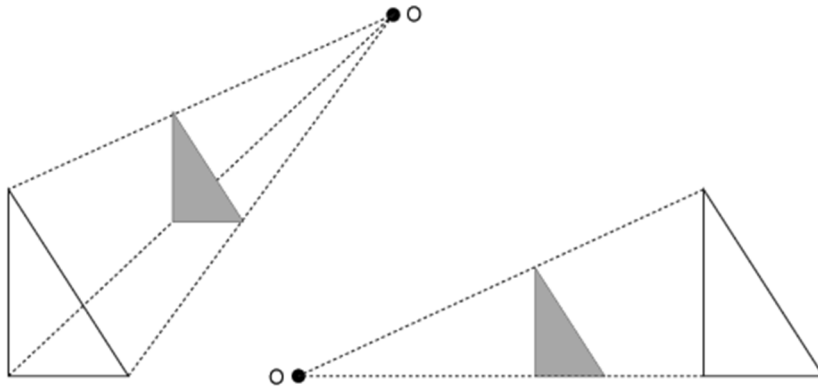
Centre of Enlargement

The position of the enlarged shape is described by the centre of enlargement (O).

Sometimes the centre of enlargement lies on or within the original shape.

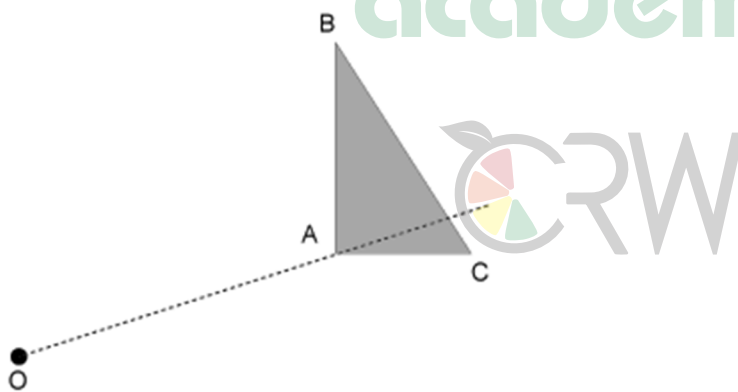
example

Identifying the centre of enlargement



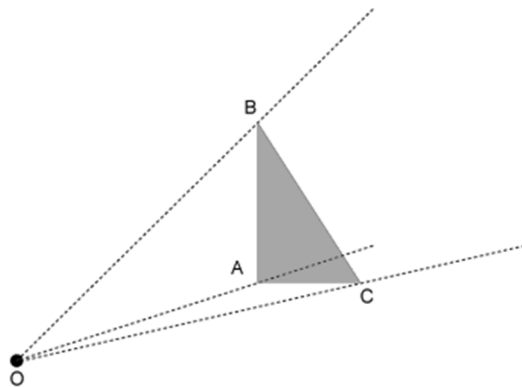
To enlarge the triangle with a scale factor of 2 and centre of enlargement O, you should do the following:

Enlarging a triangle with a scale factor of 2

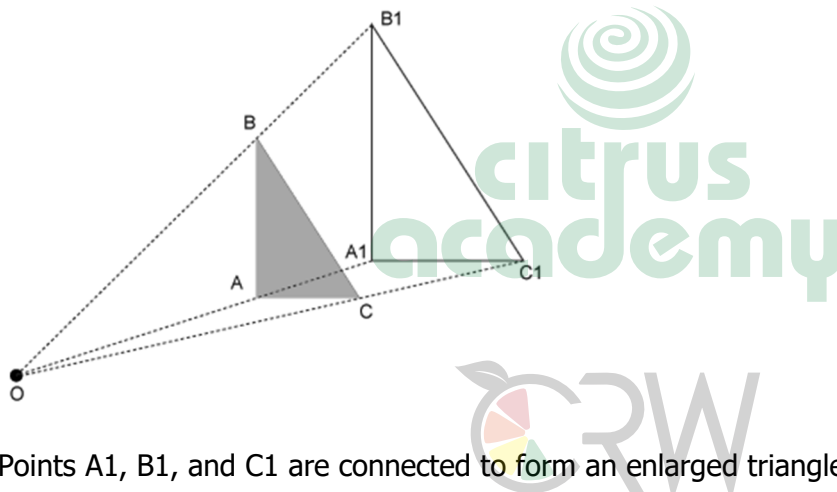


A line is drawn from point O through point A of a triangle

example



Extend lines from point O



Points A1, B1, and C1 are connected to form an enlarged triangle

For a scale factor of 2:

$$OA' = 2 \times OA$$

$$OB' = 2 \times OB$$

$$OC' = 2 \times OC$$

For a scale factor of 3:

$$OA' = 3 \times OA$$

$$OB' = 3 \times OB$$

$$OC' = 3 \times OC$$

Fractional Scale Factor

You already know that the size of an enlargement is described by its scale factor.

For example, a scale factor of 2 means that the new shape is twice the size of the original. A scale factor of 3 means that the new shape is three times the size of the original.

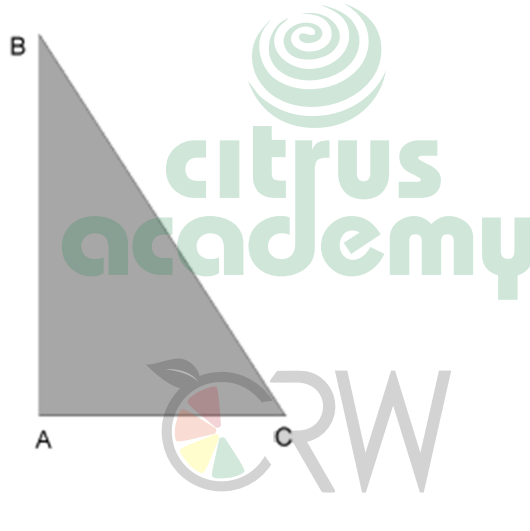
It, therefore, follows that a scale factor of $\frac{1}{2}$ means that the new shape is **half** the size of the original.

example

Enlargement with fractional scale factor

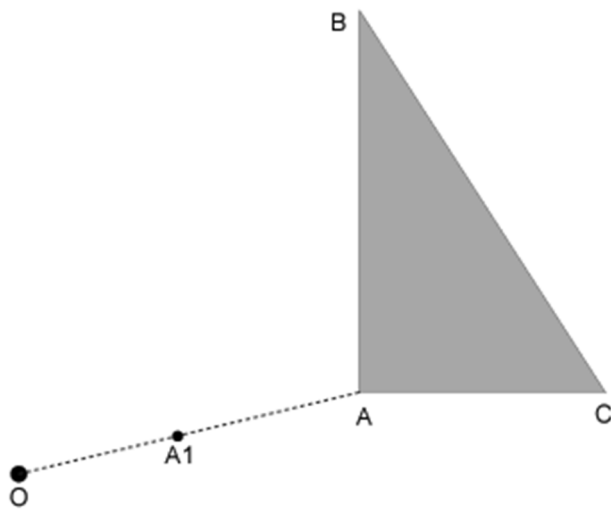
To enlarge the triangle with a scale factor of $\frac{1}{2}$ and centre of enlargement O, do the following:

Enlarging a triangle with a scale factor of one half

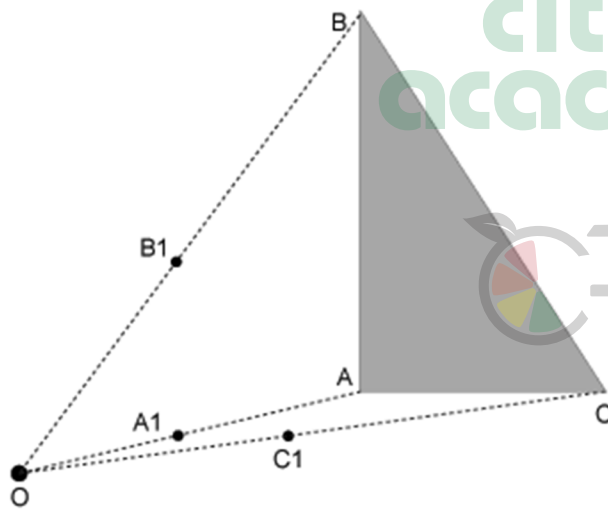


A right angled triangle

example

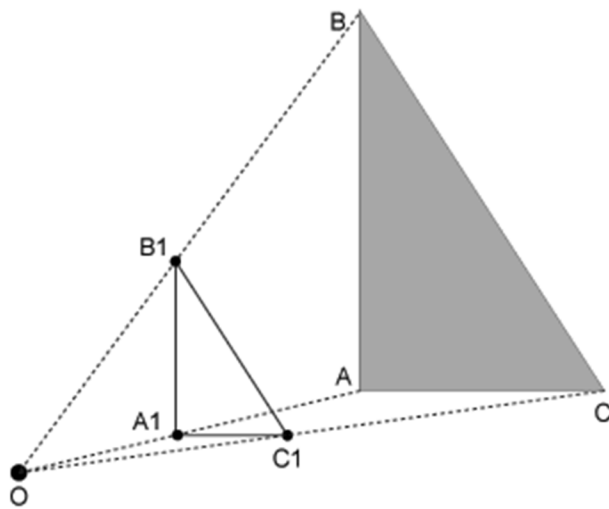


A line is drawn from point O to point A of the triangle



Extend lines from point O to B and C, indicate new scale factor points

example



Connect new scale factor points to create smaller triangle

Always check which one is the object and which is the image, so that you do not confuse the scale factors. For example, a scale factor of 2 might be mistaken for a scale factor of $\frac{1}{2}$, or a scale factor of 3 mistaken for a scale factor of $\frac{1}{3}$.

Chapter 8

Geometric Angles

Introduction to Angles

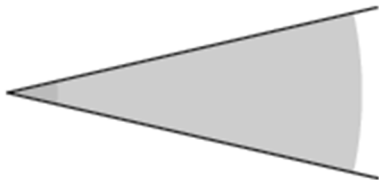
The four types of angles you should know are acute, obtuse, reflex and right angles. When you are estimating an angle, you should consider what type of angle it is first.

This chapter includes information about:

- ❖ Types of angles
- ❖ Estimating angles
- ❖ Drawing angles
- ❖ Measuring angles
- ❖ Angle sum
- ❖ Equilateral and isosceles triangles

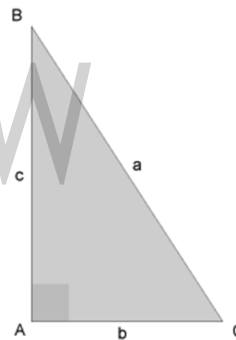
Types of Angles

Acute angle:

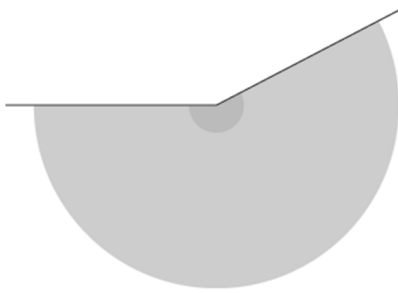


An **acute** angle is **less than 90°** .

Right angle:

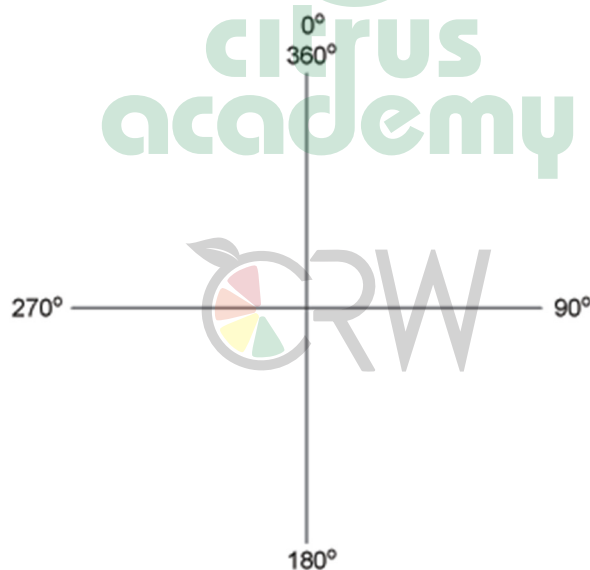


A **right** angle is **exactly 90°** .

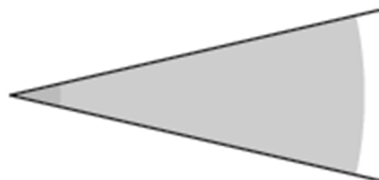
Obtuse angle:	Reflex angle:
 An obtuse angle is between 90° and 180°.	 A reflex angle is greater than 180°.

Estimating Angles

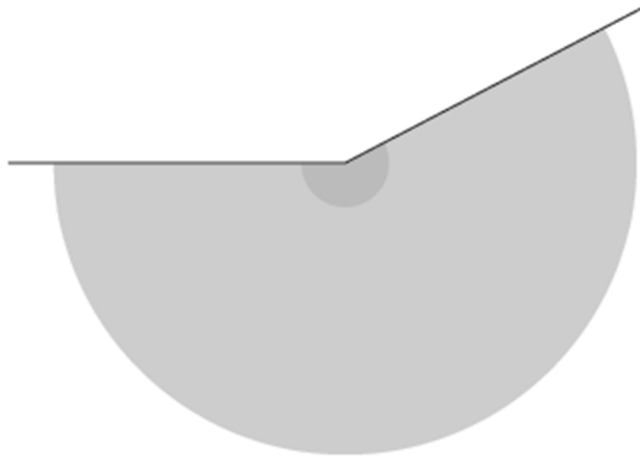
To estimate the size of an angle, first, think about which quadrant (quarter) of a complete turn it is in.



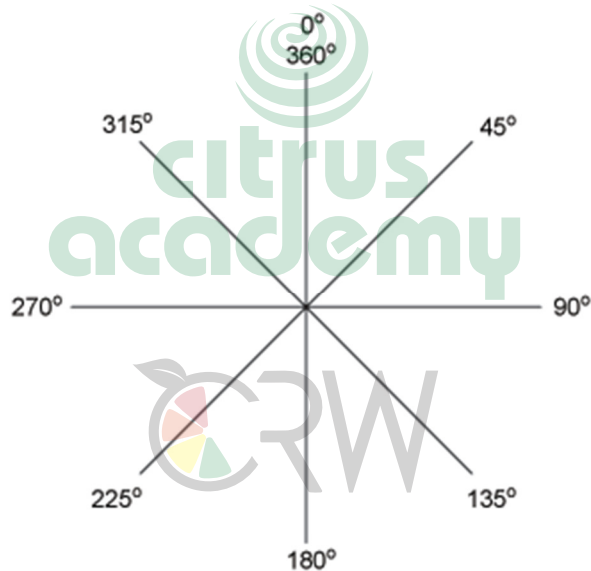
For example, the angle below is **acute**, so it must be **between 0° and 90°**.



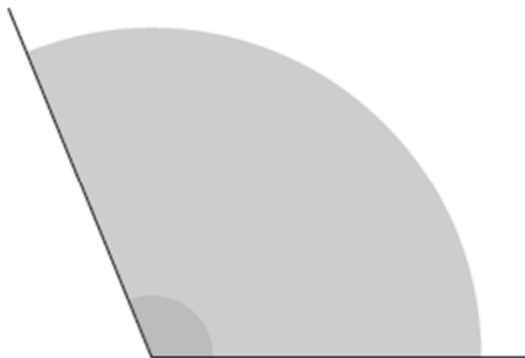
This angle is **reflex**, so it lies **between 180° and 270°** :



To be even more accurate think in terms of 45° angles:



The angle below lies somewhere between 90° and 135° , but seems slightly closer to 135° , so you could estimate that it is 120° (or something similar).



Drawing Angles

example

Steps to follow when drawing an angle

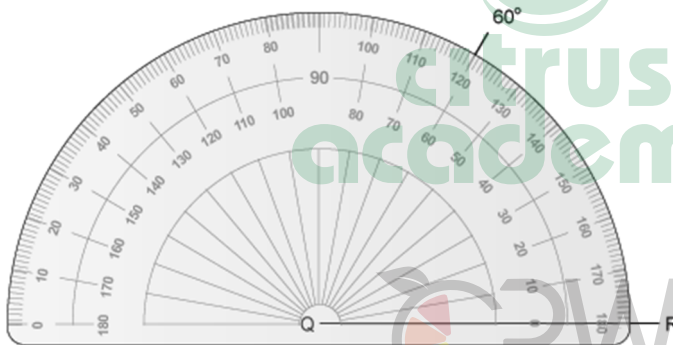
Here is how to draw the angle **PQR = 60°**

1. Draw the line QR

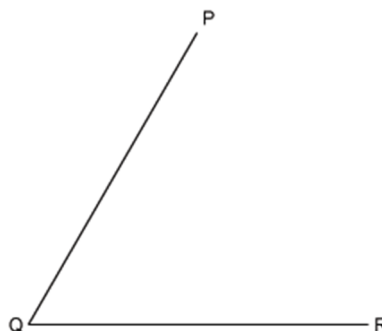


A right angled triangle

2. Place your protractor on the line QR. Ensure that the centre of your protractor is over the point Q. Make a mark at 60°.

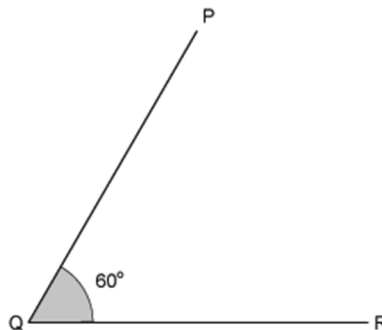


3. Remove the protractor and join Q to the 60° mark. Label this point P.



example

4. If necessary, mark the angle.

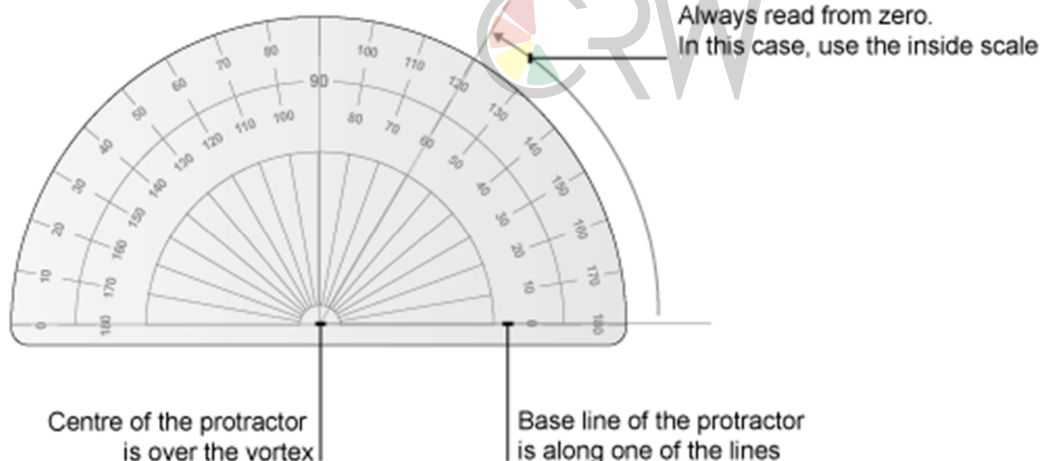


Measuring Angles Correctly

When measuring angles, make sure that the centre of the protractor is over the **vertex** (corner) of the angle and that the base line of the protractor is along one of the lines of the angle.

example

Reading a protractor correctly

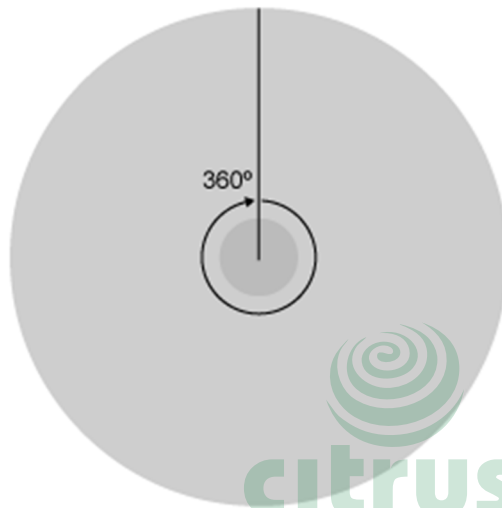


Calculating an Angle Sum

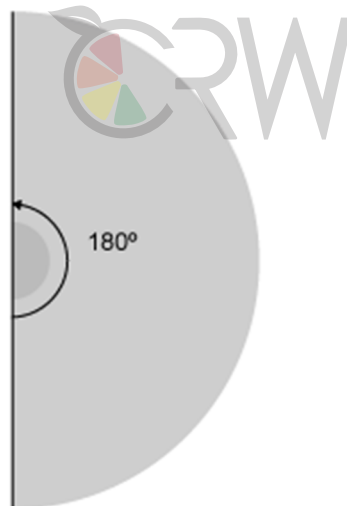
example

Angle sums

There are **360°** in a **complete** turn.



There are **180°** in **half** a turn (a straight line).



Angles in Two-Dimensional Shapes

Angles in a Triangle

The angles in a **triangle** add up to **180°**.

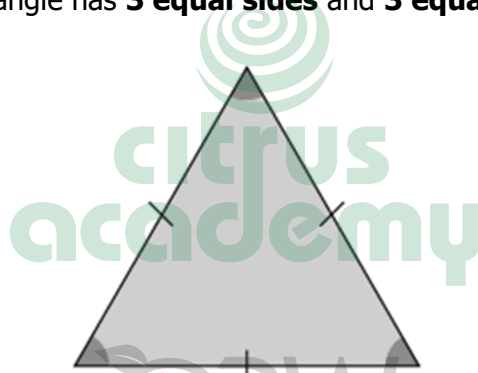
Angles in a Quadrilateral

The angles in a **quadrilateral** add up to **360°**.

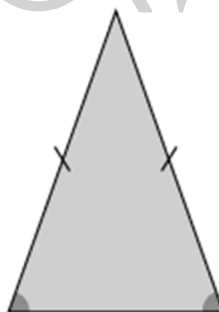
This works for any quadrilateral. Again, you can try this for yourself with a piece of paper!

Angles in Equilateral and Isosceles Triangles

An **equilateral** triangle has **3 equal sides** and **3 equal angles**.



An **isosceles** triangle has **2 equal sides** and **2 equal angles**.



Chapter 9

Constructing Triangles and Plotting Bearings on a Map

Introduction to Constructing Triangles and Plotting Bearings

This chapter will show you how to construct triangles, and how to plot bearings.

To practice this you will need a pencil, some paper, a ruler, a protractor and a pair of compasses.

This chapter includes:

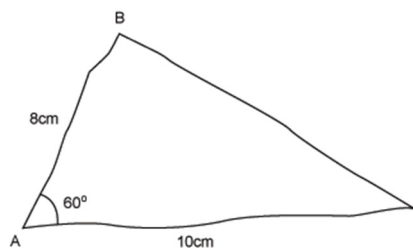
- ❖ Using a protractor
- ❖ Using a compass
- ❖ Plotting bearings

Using a Protractor

There are two types of triangle that you might be asked to construct using a ruler and protractor. The first is where you are given two sides and the included angle (SAS). The second is where you are given two angles and the included side (ASA).

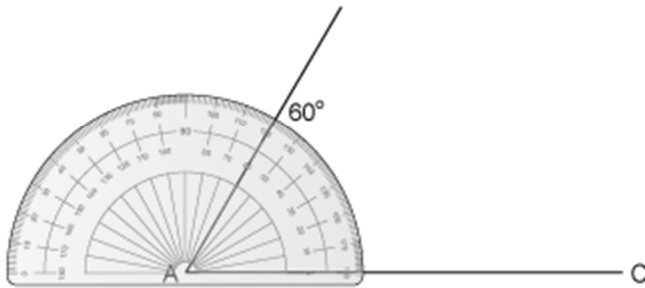
example

Two sides and the included angle (SAS)

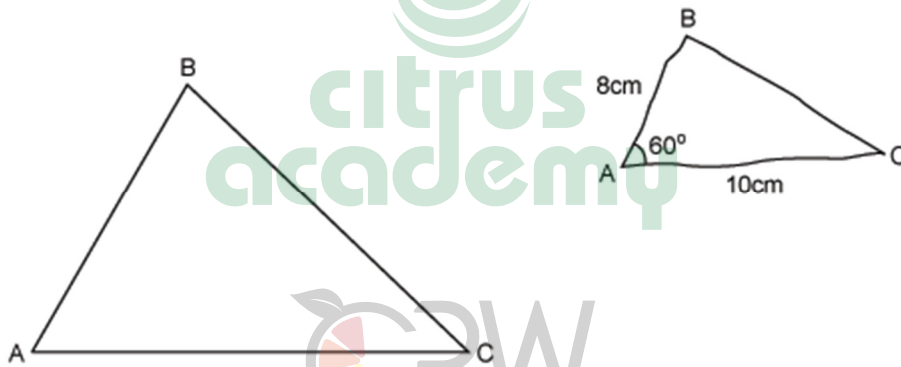


Step 1

example



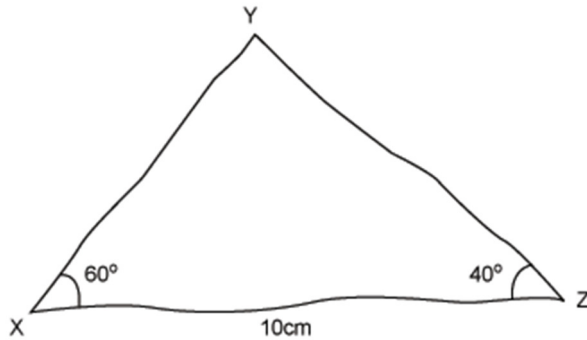
Step 2



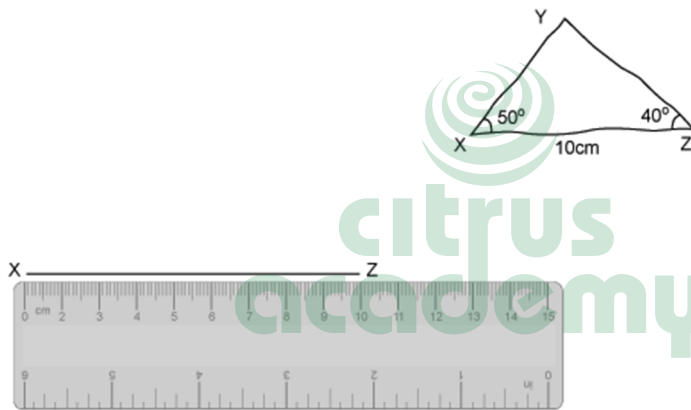
Step 3

example

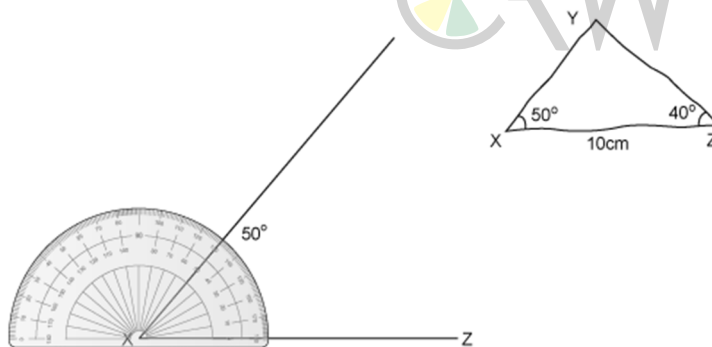
Two angles and the included side (ASA)



Step 1

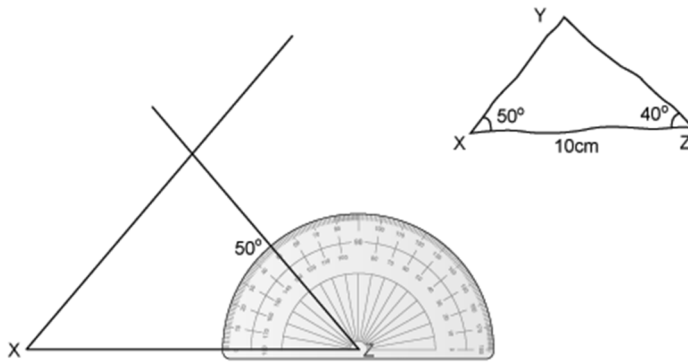


Step 2

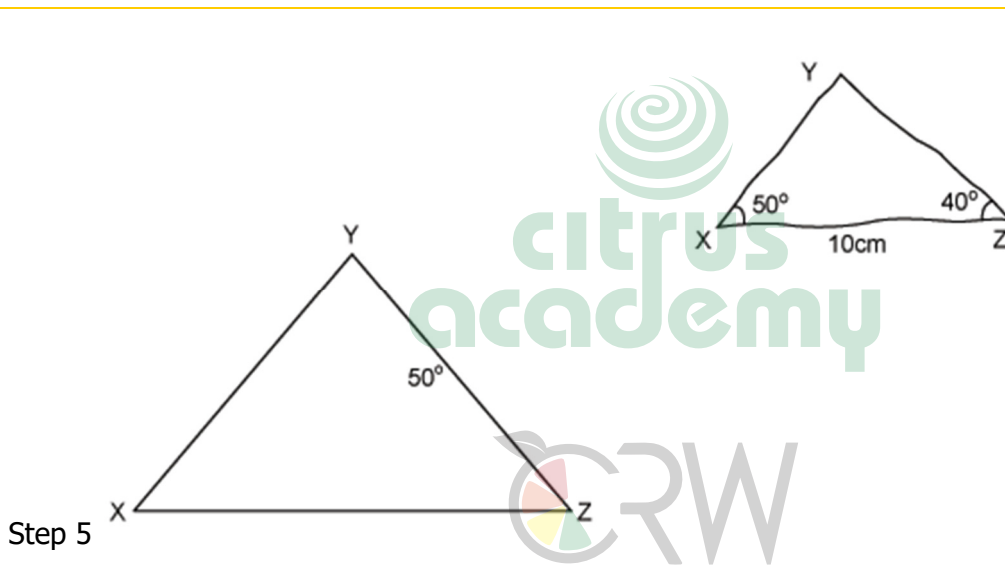


Step 3

example



Step 4



Step 5

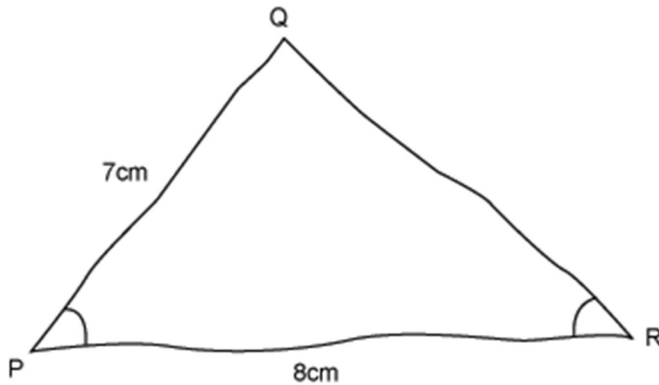
Do not remove the construction lines when you draw them - they are proof that you constructed the triangle correctly.

Constructing Triangles and Bearings Using a Compass

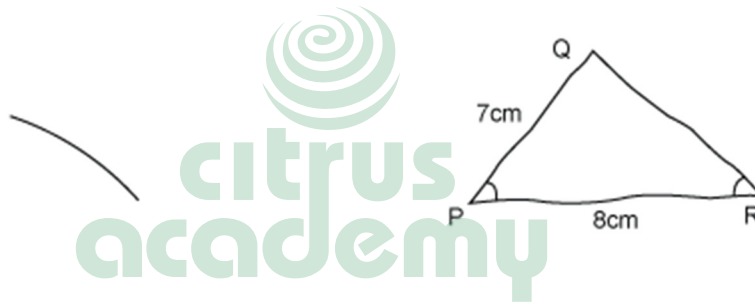
You might be asked to construct a triangle given three sides (SSS). To do this you will need a ruler and compass, but no protractor as you do not know any angles.

example

Constructing a triangle without a protractor

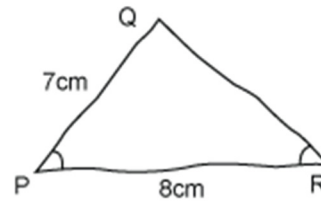


Step 1

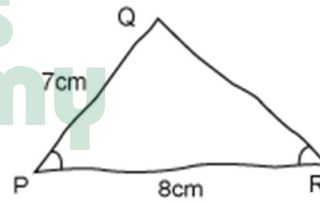
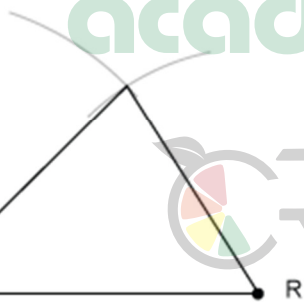


Step 2

example



Step 3



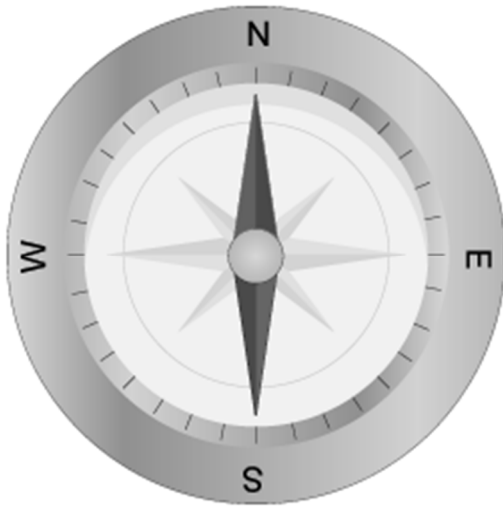
Step 4

Remember - do not remove the construction lines.

Bearings

Suppose you were in the middle of nowhere, and there were no signs or landmarks to help you find your way. Would you know how to find your way home? Someone might tell you via phone or radio to “walk to your left”, or “turn through 60° and then start walking”, but how would they know which way you were pointing in the first place?

One way of describing direction from a point is to use **three-figure bearings**.

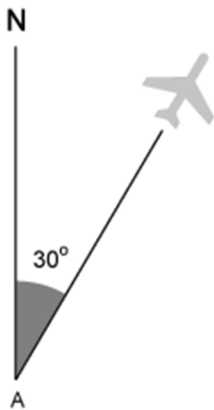


A compass always points north. Bearings are measured from the **north line**, always in a **clockwise** direction.

So when someone tells you to walk on a bearing of 120° , you should face north, turn clockwise through 120° and start walking.

example

Bearings



The angle between the north line and the flight path of the aeroplane is 30° . We say that the aeroplane is flying on a bearing of 030° from OR Tambo Airport.

Bearings are always described using three figures. So for less than 100° put an appropriate number of 0s in front. For example, 020° , 037° , 002° , 007° .

Chapter 10

Constructing Triangles and Plotting Intersecting and Parallel Lines

Introduction to Constructing Triangles and Plotting Intersecting and Parallel Lines

You can use intersecting and parallel lines to work out the angles in a triangle.

In this chapter, we will look at how to find angles in order to draw lines accurately to construct shapes.

Intersecting and Parallel Lines: Finding Angles

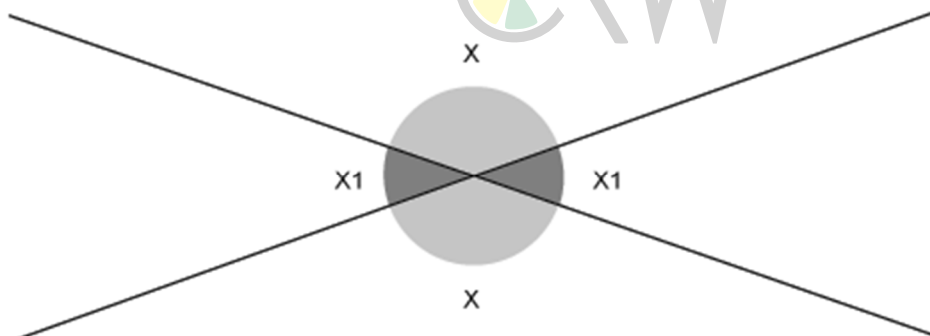
Intersecting lines are lines that **cross** each other.

Parallel lines are lines that **never cross** each other - they keep the same distance apart from each other.

example

Intersecting lines and angles

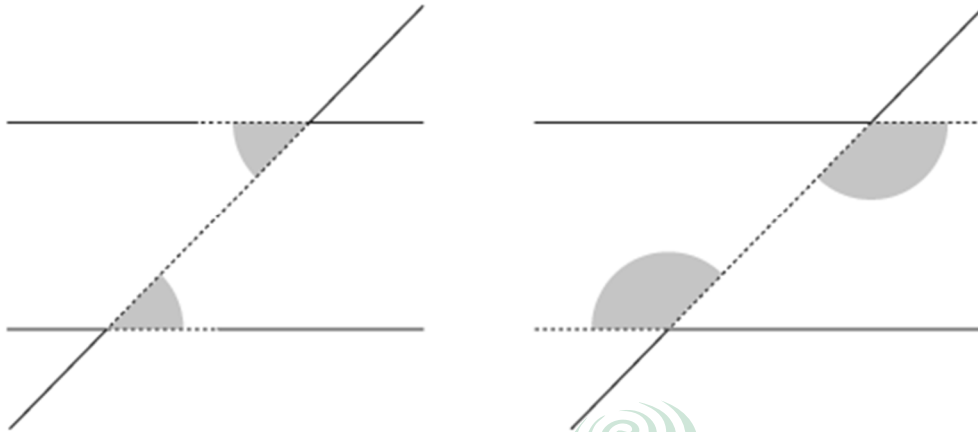
When two lines intersect, the opposite (X) angles are equal:



example

Parallel lines and angles

On parallel lines, alternate (Z) angles are equal:

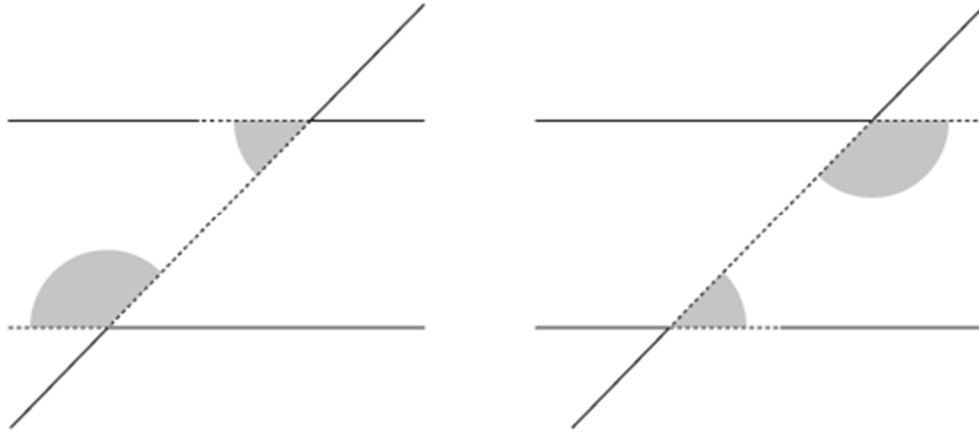


On parallel lines, corresponding (F) angles are equal:



example

On parallel lines, co-interior (C) angles add up to 180° :



Parallel and Equal Lines

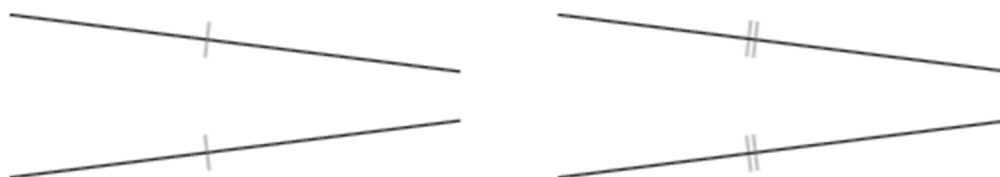
example

How to differentiate between parallel lines and equal lines

Parallel lines are marked with **arrows**.



Lines of equal length are marked with **dashes**.



Chapter 11

Polygons

Introduction to Polygons

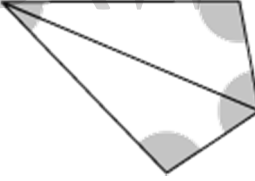
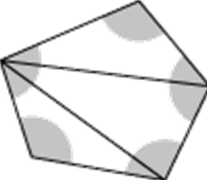
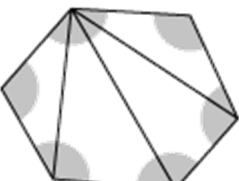
Polygons are 2-D shapes with straight sides. The sum of the exterior angles of a polygon is 360° . The interior and exterior angles of each vertex of a polygon add up to 180° .

In this chapter we will look at:

- ❖ Types of polygons
- ❖ The exterior angle of a polygon
- ❖ The interior angle of a polygon
- ❖ Angle of a regular polygon

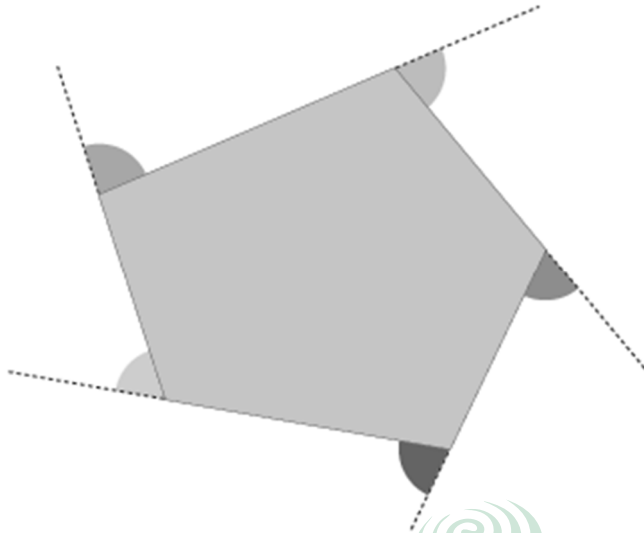
Types of Polygon

A polygon is **any 2-D shape** with straight sides.

Name	Number of sides	Shape	Sum of interior angles
Triangle	3		$(1 \times 180) = 180^\circ$
Quadrilateral	4		$(2 \times 180) = 360^\circ$
Pentagon	5		$(3 \times 180) = 540^\circ$
Hexagon	6		$(4 \times 180) = 720^\circ$

The Exterior Angle of a Polygon

The exterior angle at a vertex (corner) of a shape is made by continuing one edge.

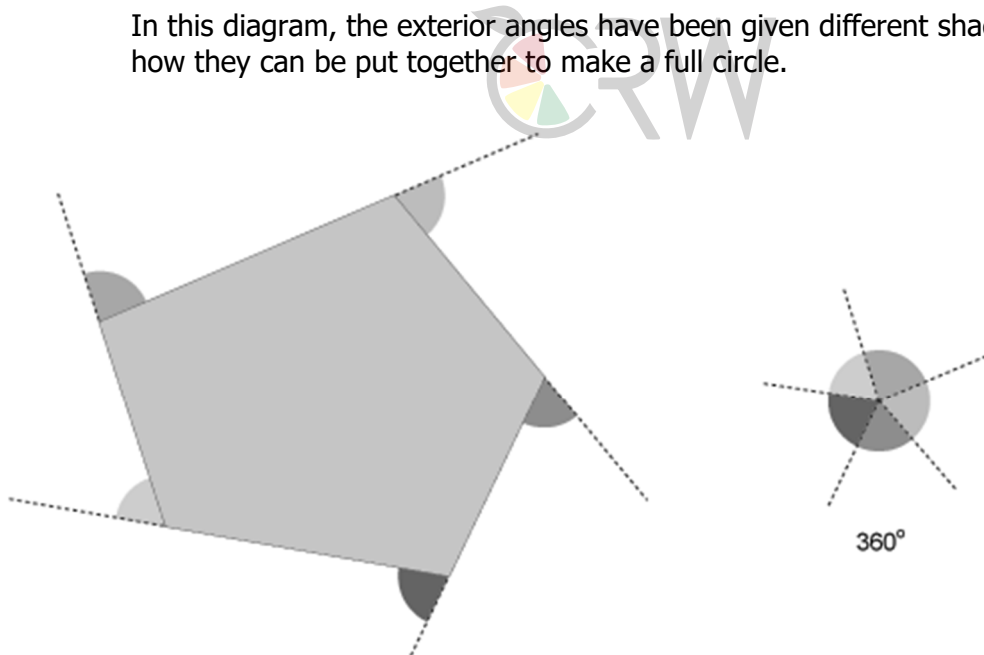


Sum of Exterior Angles

The exterior angles of a polygon add up to 360° .

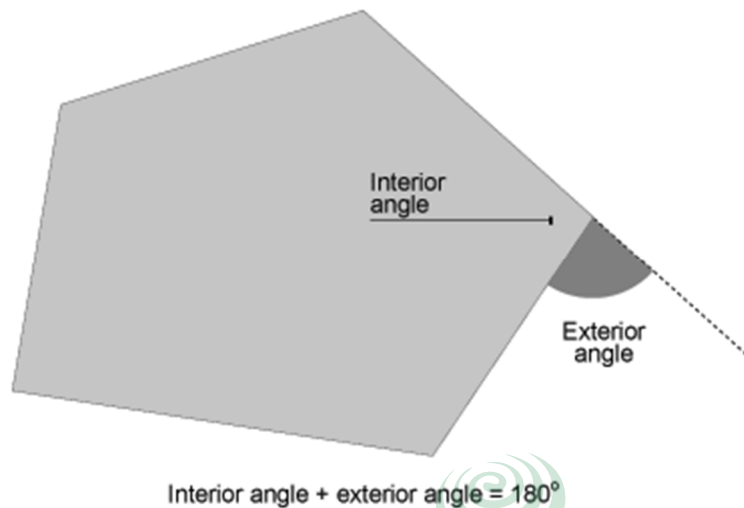
Imagine walking around the outside of the polygon. By the time you get back to where you started you have completed one full turn. So all the corners you turned must add to 360° .

In this diagram, the exterior angles have been given different shades. You can see how they can be put together to make a full circle.



The Interior Angle of a Polygon

The interior angle of a polygon is the angle within the vertex. The interior and exterior angles lie on a straight line.



So, for each vertex of a polygon: interior angle + exterior angle = 180°

Angle of a Regular Polygon

We have already seen that the sum of the exterior angles is 360° and that the interior and the exterior angles add up to 180° . Use this information to find the exterior and interior angles of regular polygons.

Chapter 12

Symmetry

Introduction to Symmetry

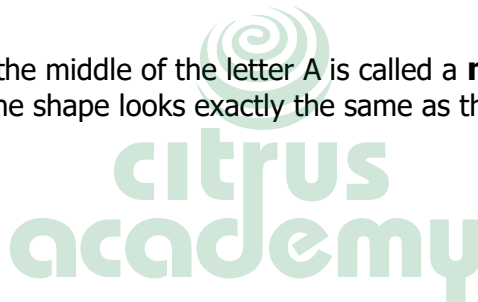
You can place a mirror along a line of symmetry and get an exact copy of the original shape. You can also fold along the line and find that one half of the shape will fit exactly into the other.

In this chapter we will look at:

- ❖ Line symmetry
- ❖ Symmetry in regular polygons
- ❖ Rotational symmetry

Line Symmetry

The dotted line through the middle of the letter A is called a **mirror line** because if you place a mirror along it, the shape looks exactly the same as the original.



Another name for a mirror line is a **line of symmetry**. This kind of symmetry can also be called "**reflective symmetry**".

Now look what happens when you fold the letter "A" along some dotted lines.

Attempting Symmetry



The letter A is marked with fold lines



The letter A is folded at the lines

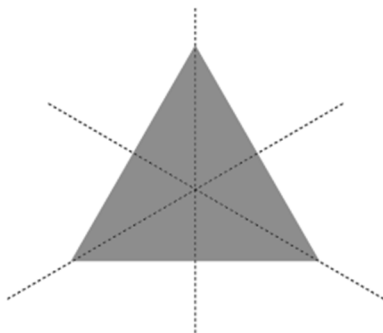
Only in the **third** example does the folded part of the shape fit exactly over the original part. The dotted line is its line of symmetry.

Symmetry in Regular Polygons

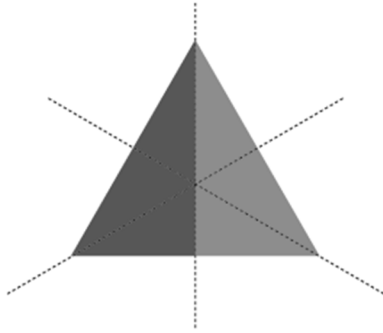
If you cut out a rectangle from a piece of paper and experiment with it and a mirror, you will soon find that it has just **two** lines of symmetry - one lengthwise and one widthwise.

An equilateral triangle has **three** lines of symmetry.

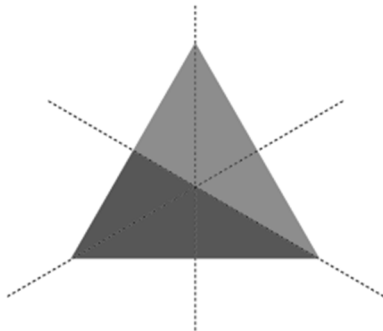
Lines of Symmetry



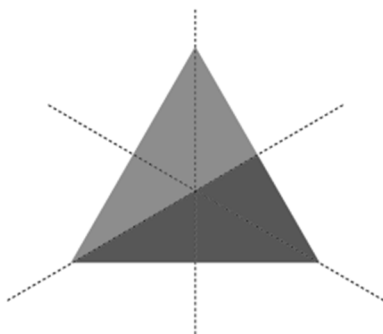
Three lines of symmetry on an equilateral triangle



Indication of vertical symmetry



Diagonal symmetry indicated

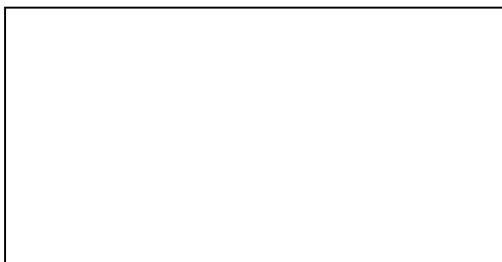


Diagonal symmetry indicated



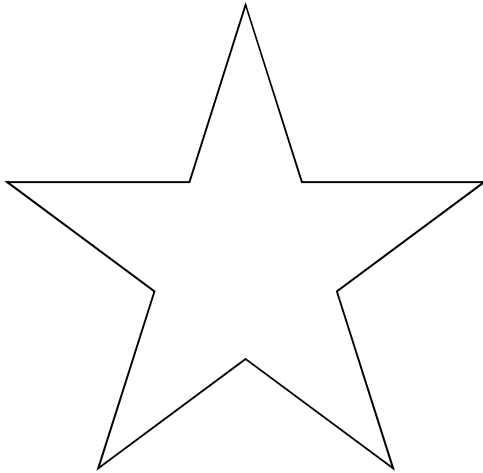
Rotational Symmetry

A rectangle can be rotated about its centre by half a turn. The result looks exactly like the original rectangle. We call this **rotational symmetry**.



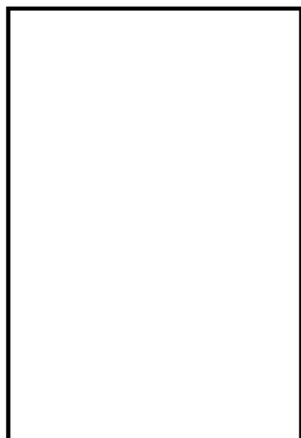
A tracing of the star below fits the same star in exactly **five** different ways.

We say that the star **has rotational symmetry of order 5**.



If a shape only fits into itself once, it has no rotational symmetry.

Look at these shapes. How many orders of rotational symmetry do they have?



Chapter 13

Circles

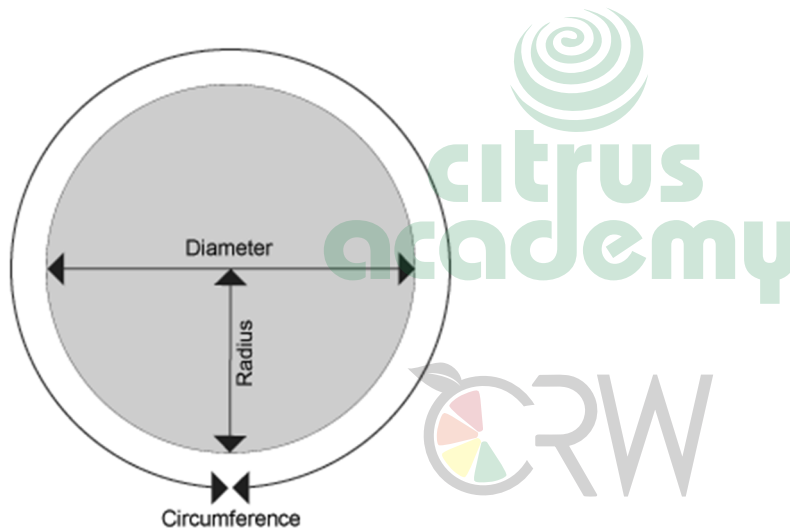
Introduction to Circles

This chapter will show you how to use pi to find the circumference and area of a circle. Pi is represented by this symbol π and is the approximate number 3.141592.

This chapter covers:

- ❖ Pi
- ❖ Circumference of a circle
- ❖ Area of a circle

Pi



information

Formula and facts about Pi

- For any circle, **circumference ÷ diameter = 3.141592.....**
- This number is so special that it is given its own symbol π (the Greek letter equation).
- It is impossible to work out an exact value of π so approximations are used. These include 3.14, 3.142 and $\frac{22}{7}$.
- All scientific calculators have a π button. You can use this to make your calculations more accurate.
- If no calculator is available, or an approximate answer to a calculation involving π is required, then round π to 3 (or whatever is suggested).

Circumference of a Circle

information

Formula

We have already seen that $\text{circumference} \div \text{diameter} = \pi$

Therefore, **circumference** = $\pi \times \text{diameter}$. This can be written as:

$$C = \pi d$$

The diameter is **twice** the length of the radius. This formula can be written as:

$$C = 2 \pi r$$

Area of a Circle

information

Formula

Here is the formula for the **area** of a circle:

$$A = \pi r^2$$

πr^2 means $\pi \times r \times r$.

Only the "r" is squared.

Chapter 14

Pythagoras' Theorem

Introduction to Pythagoras' Theorem

You can use Pythagoras' theorem to find the length of any of the sides on a triangle.

This chapter covers:

- ❖ Right-angled triangles
- ❖ Finding the hypotenuse
- ❖ Finding another side
- ❖ Length of a line segment

Pythagoras' Theorem: Right-angled Triangles

information

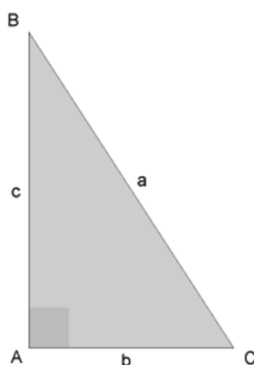
Formula

Pythagoras' Theorem states that for all right-angled triangles:

"The square on the hypotenuse is equal to the sum of the squares on the other two sides".

(The hypotenuse is the longest side and it is always opposite the right angle)

So for any **right-angled triangle**, the square on the hypotenuse is equal to the sum of the squares on the other two sides.



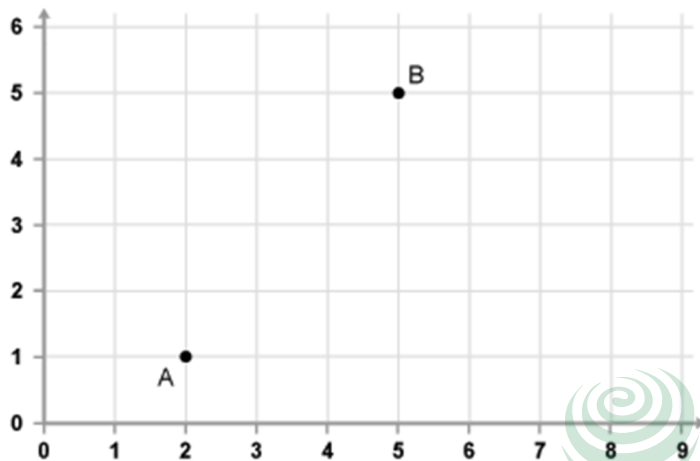
In this triangle $a^2 = b^2 + c^2$ and angle A is a right angle.

Pythagoras' Theorem only works for right-angled triangles, so you can use it to test whether a triangle has a right angle.

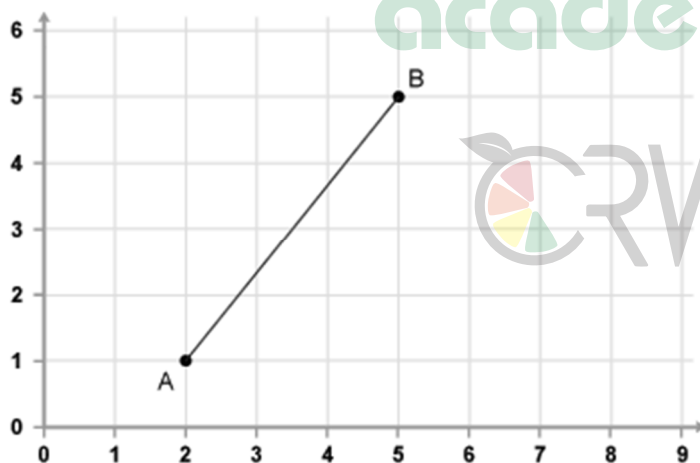
Finding the Length of a Line Segment

You can also use Pythagoras' theorem to find the distance between two points:

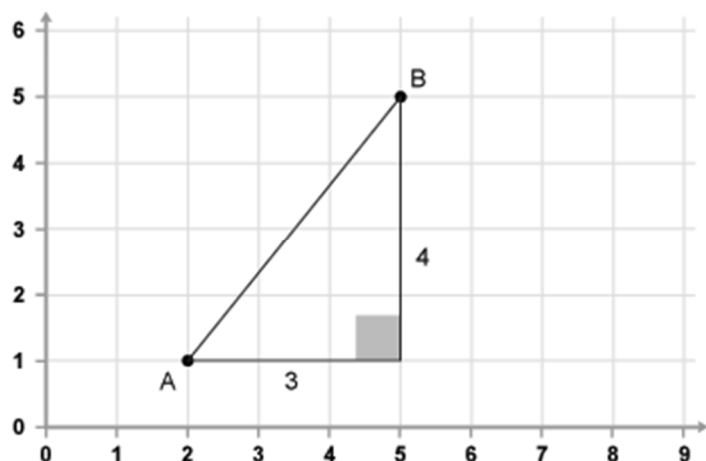
Determining distance with Pythagoras' Theorem



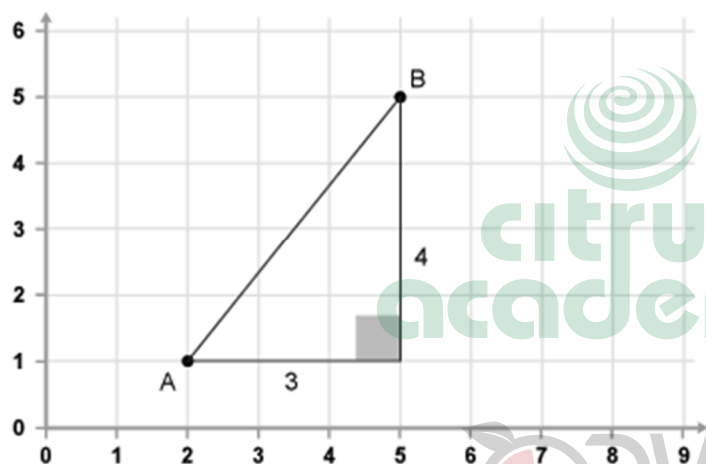
A is located at $x=2$ $y=1$, B is located $x=5$ $y=5$



A and B are connected



Triangle width and height are marked



$$\begin{aligned}AB^2 &= 3^2 + 4^2 \\AB^2 &= 9 + 16 \\AB^2 &= 25 \\AB &= 5\end{aligned}$$

Distance of AB is calculated

Chapter 15

Constructions and Locus

Introduction to Constructions and Locus

For this chapter, you will need a pencil, ruler, a pair of compasses and some paper. Follow the instructions for the constructions and then try some for yourself.

This chapter includes:

- ❖ Definitions
- ❖ Midpoint of a line segment
- ❖ Perpendicular point to a line
- ❖ Perpendicular point on a line
- ❖ Angle bisector
- ❖ Locus

Constructions and Locus Definitions

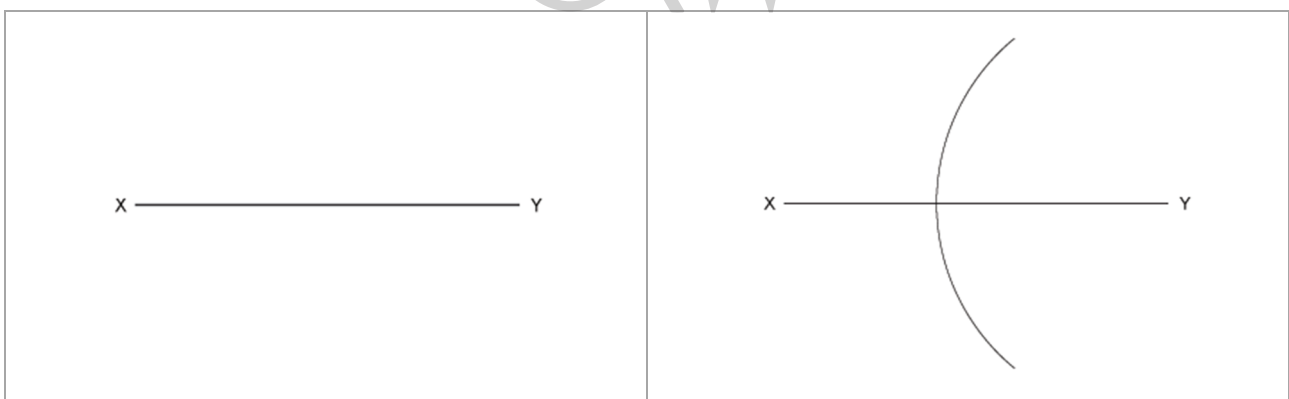
If two lines are drawn at right angles to each other, they are said to be **perpendicular**.

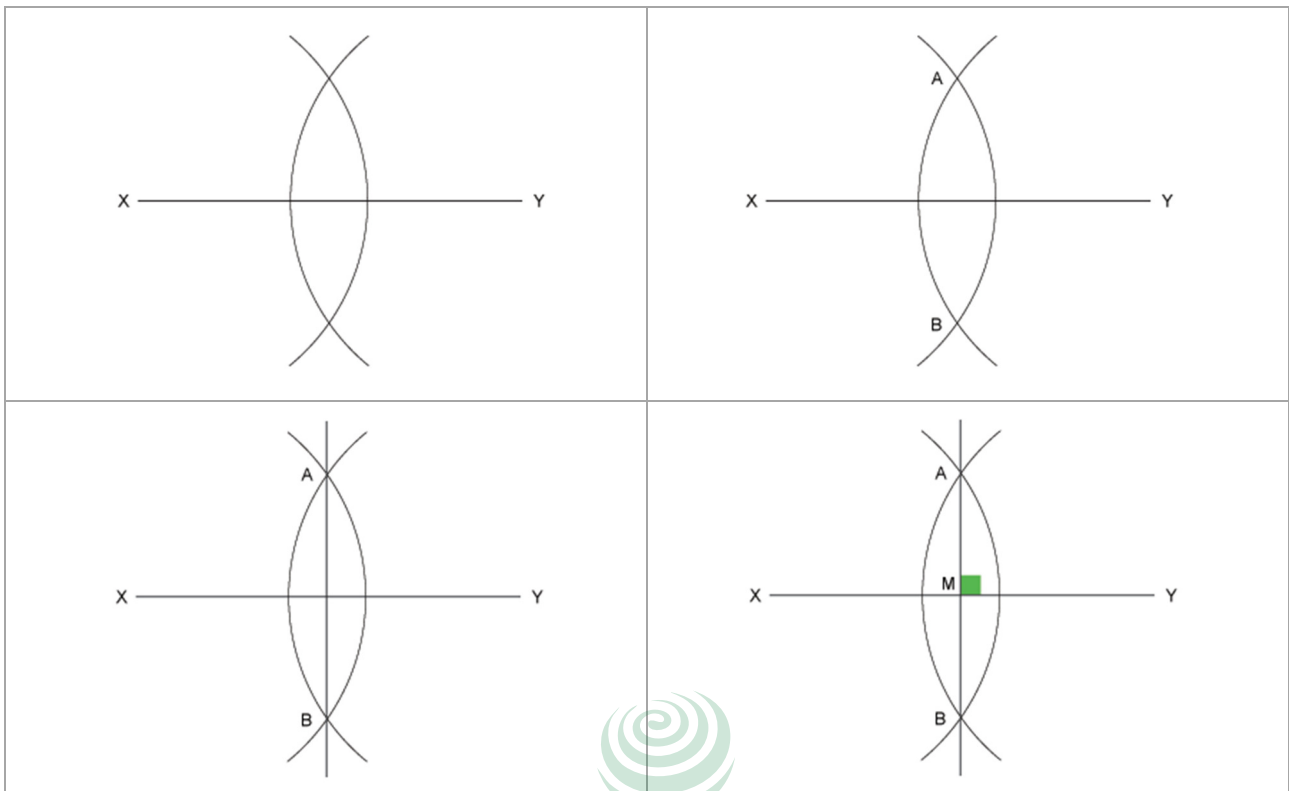
A line drawn to cut another line or angle in half is a **bisector**.

The path of a point that moves according to a certain rule is a **locus**. The plural of locus is loci.

Midpoint of a Line Segment

Practise this construction until you can do it without looking at the instructions.

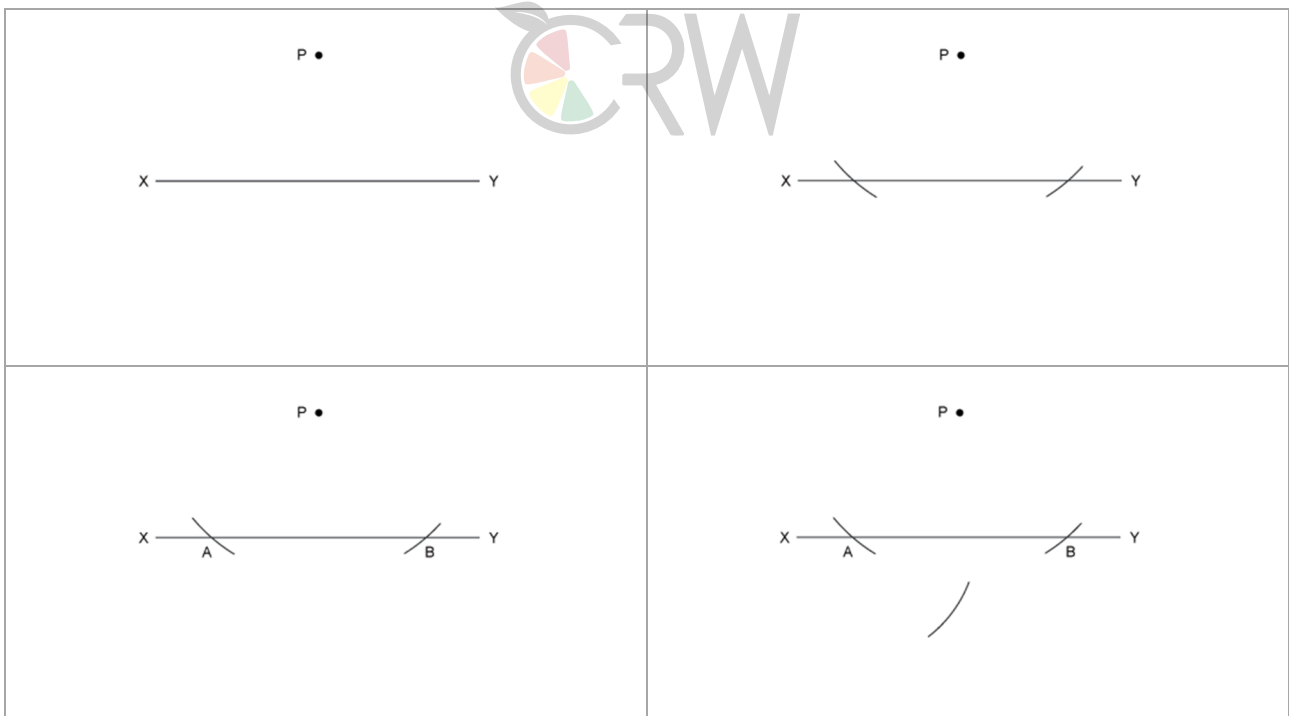


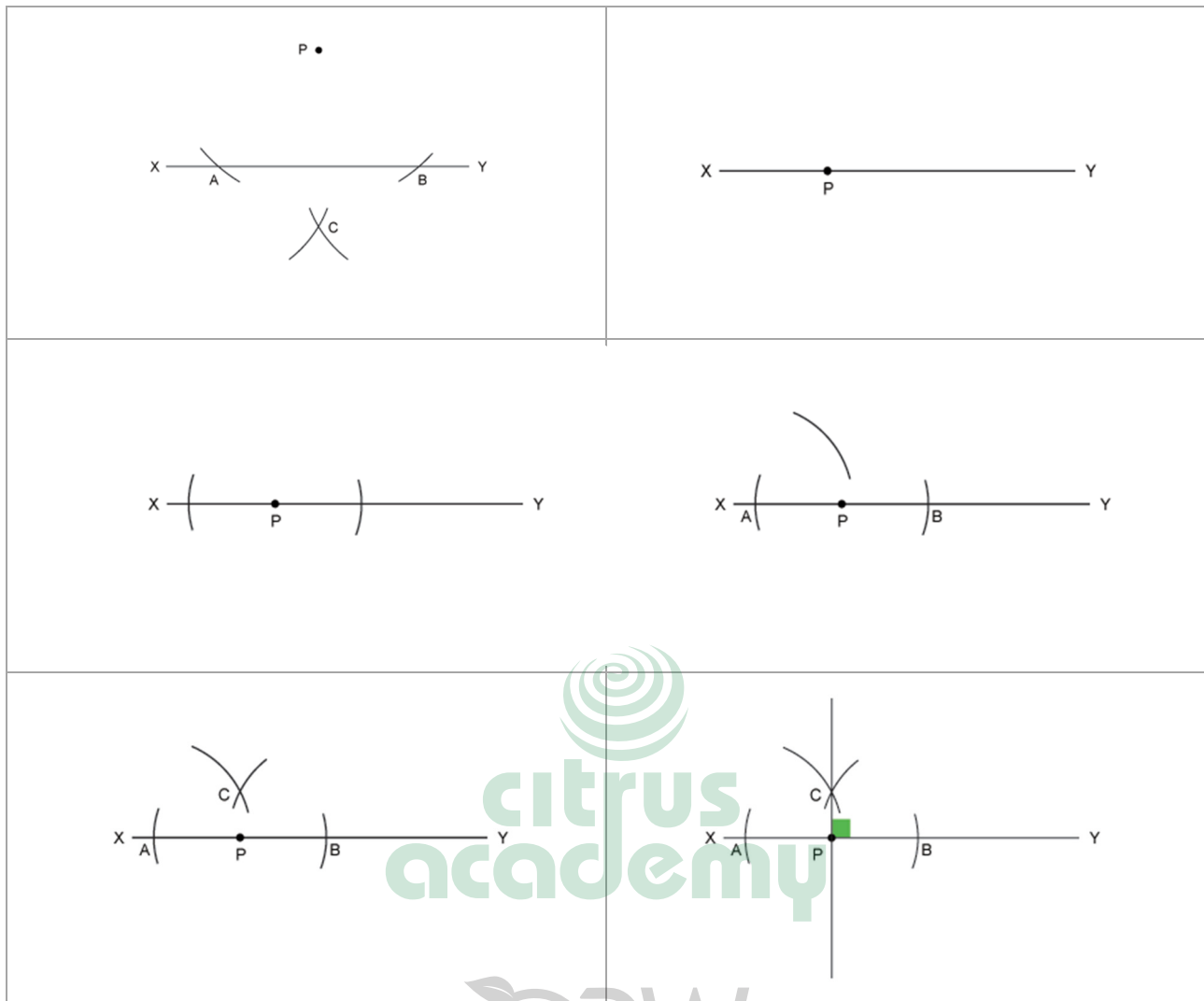


Perpendicular Point to a Line

Practise this construction until you can do it without looking at the instructions.

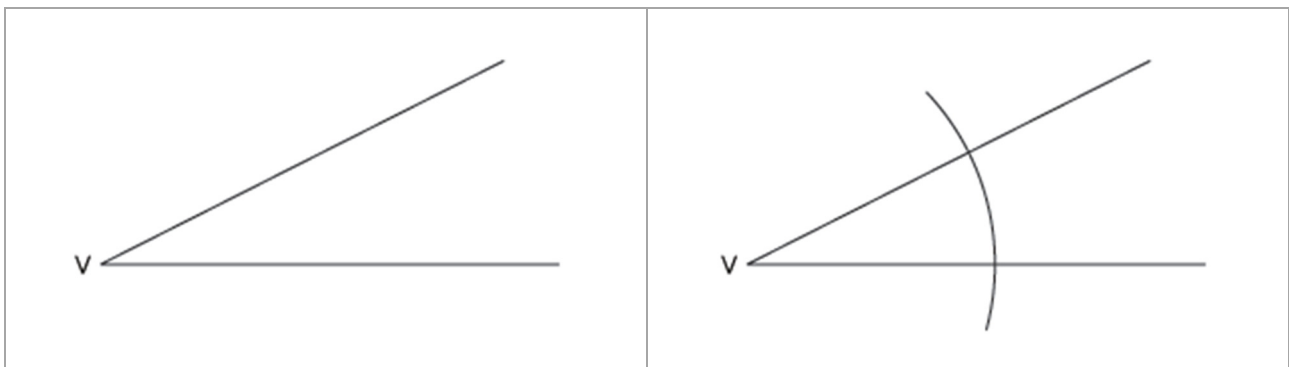
Perpendicular point to a line construction

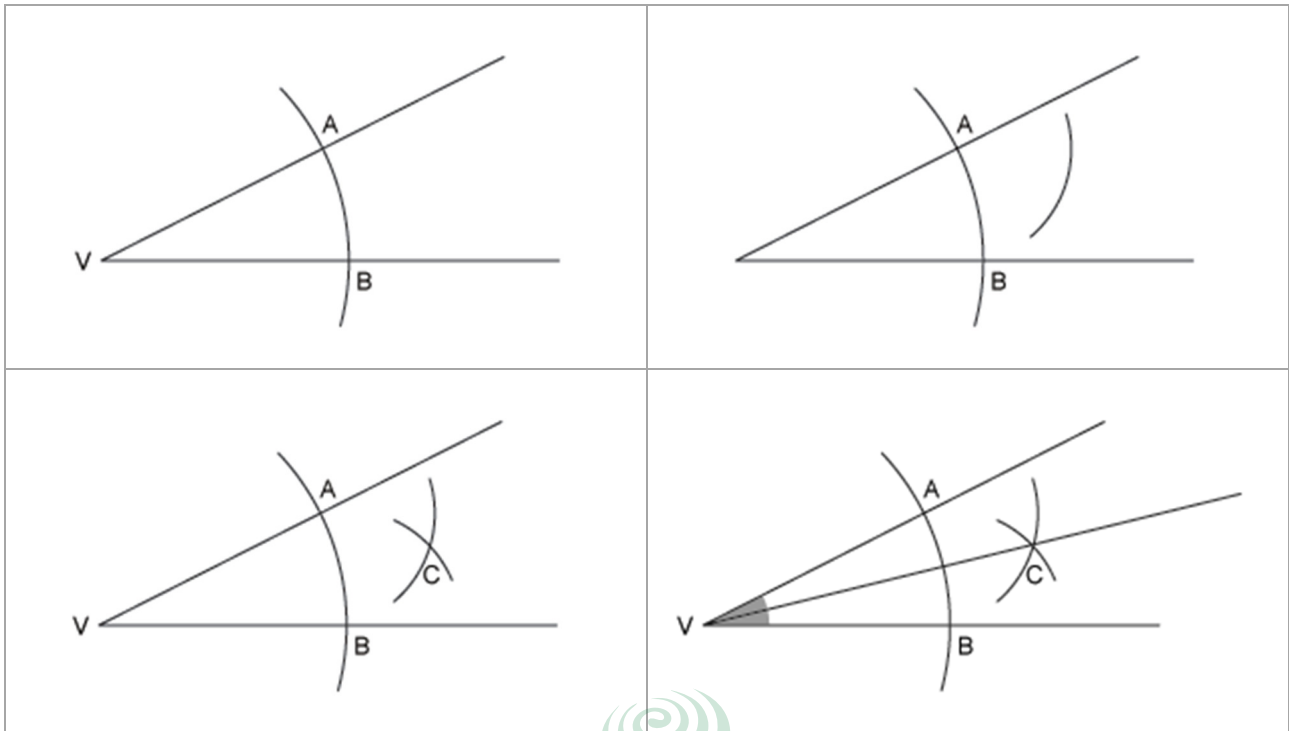




Constructions and Locus – Angle bisector

Practise this construction until you can do it without looking at the instructions.

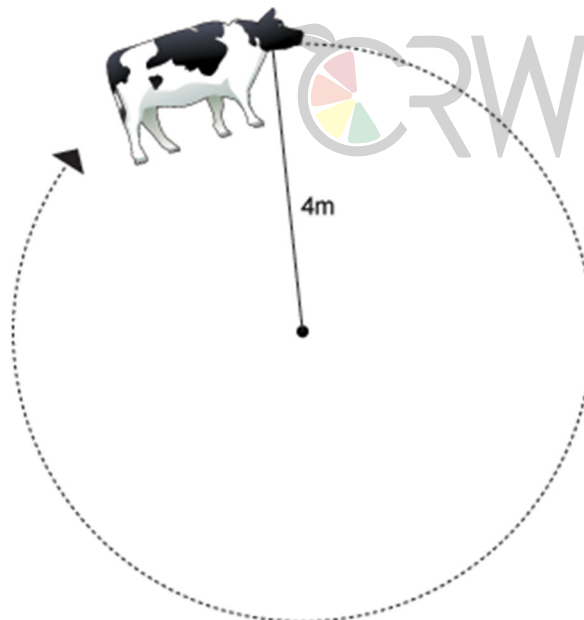




Constructions and Locus – Locus

A cow is tethered to a post with a rope of length 4m. It walks around the post with the rope pulled tight.

The cow's path is a circle of radius 4m.



The cow's path is known as the **locus**.

The plural of locus is **loci**.

practical

Complete the following formative assessment:

F9016.1 – Paired Practice Worksheet



Chapter 16

Spatial Planning and Measurement in Context of Citrus Production

Introduction to Space and Shape when Establishing and Orchard

information

Supplementary learning and sources of information

- Spacing refers to tree and row spacing and is expressed as for example 6x3, meaning rows are 6m apart with trees planted every 3m in the rows.
- The orchard is laid out before planting starts, and the position of each row is indicated by a planting line or cable and the position of each tree with a stake.
- Stakes must align in the rows, across the rows and diagonally before planting starts.
- Planting holes are dug immediately prior to planting, the tree is removed from its container, the roots are spread if required, the trees are placed on a pile of soil at the bottom of the planting hole, and the hole is backfilled with soil.
- The tree is agitated gently to ensure that all the roots are in contact with the soil, after which the soil is compacted gently around the root-zone. The base of the tree stem must be slightly above the soil level.
- Trees are watered immediately after being planted, after which the irrigation system takes over.
- Sufficient water must be supplied to the root-zone without over-irrigating. Special micro-jets are used and the amount of water delivered by drippers is carefully controlled.
- Trees are pruned to reduce transpiration until the tree is well-established.
- Tree stems are wrapped or painted to protect them from the sun.
- Suckers must be removed regularly.
- Weed, pest and disease control and fertilisation must be optimum to ensure good tree development.
- Poor tree development can be as a result of a number of factors.
- Trees can be replaced in a new planting in the first three years after the orchard is established. Such trees must be well cared for to ensure rapid growth and development.
- Cross contamination is prevented by ensuring that pruning tools and equipment is sterilised.

Once the necessary preparation for planting has been made, we must ensure that: We have the necessary equipment at hand, we have quality plant material that has been well cared for, we have prepared the planting area in the prescribed manner, and we have ensured that the ideal conditions exist for planting. We have also taken into account the dangers of root shock and the steps that are required to avoid this condition. The orchard can now be planted in line with the design, and with the correct tree and row spacing.

Spacing

Spacing refers to both the tree and row spacing. The spacing of the orchard is decided on when the orchard is planned and depends on the type of soil and the growth habits of the cultivar to be planted. Cultivars with prolific growth habits that are planted in good soil will, therefore, be planted with a wider tree spacing than weaker growers on poorer soil.

Spacing is for example expressed as 6x3, meaning that the rows will be 6m apart with trees planted every 3m within the row. The number of trees planted per hectare can be determined by the spacing.

example

Calculating trees per hectare

Using the example above, the trees per hectare can be calculated. Remember that:

$$1\text{ha} = 10,000\text{m}^2 = 100\text{m} \times 100\text{m}$$

$$100 / 6 = 17 \text{ rows per hectare}$$

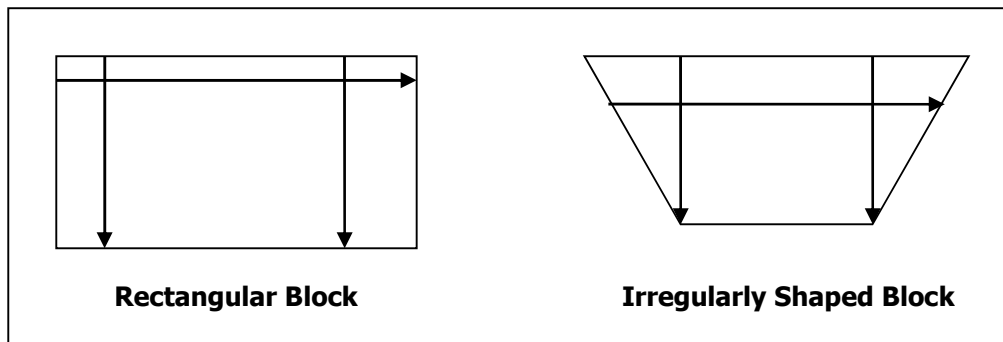
$$100 / 3 = 33 \text{ trees per row}$$

$$17 \times 33 = 561 \text{ trees per hectare}$$

Orchard Layout

An orchard block has to be measured and laid out very precisely. The exact position of each tree is marked with a stake before planting starts to ensure that the orchard will be planted exactly as planned. Using the orchard plan or the irrigation plan, the steps below are followed:

- ❖ Mark out the position of the longest row in the planting direction, whether it is along the side or through the middle of the block that is being planted.
- ❖ Using a theodolite or a dumpy level, mark out a line at 90°, either at the end of a rectangular or through the middle of an irregularly shaped block.



Orchard Layouts in Differently Shaped Blocks

- ❖ Working from these two lines, stake out the rows and the tree positions as prescribed by the basic plan. Mark the rows with planting lines and the position of each tree with a stake.
- ❖ Always ensure that the row and tree position lines are at 90°.
- ❖ Once all the stakes are in place, ensure that the stakes are aligned in the rows, across the rows and diagonally.



Alignment in Planted Blocks

practical

Complete the following formative assessment:

F9016.2 – Team Research Poster and Class Presentation