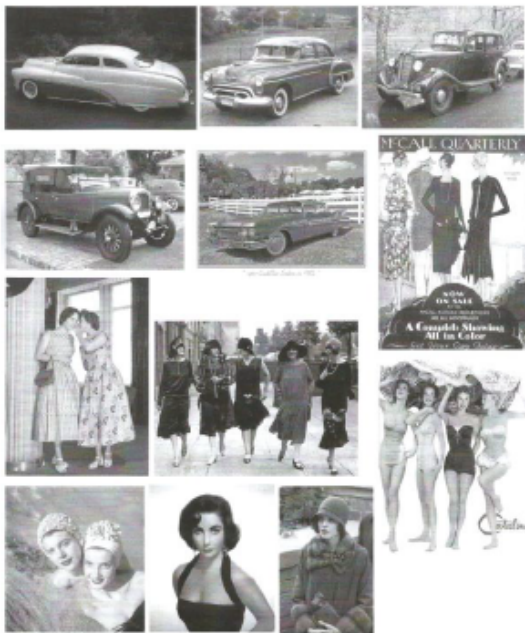


ART

Visual Literacy and the Visual Diary

- Being visually literate enables us to read the culture that we live in, + others we have some familiarity with.
- Following images.
- 7 images are of cars, 7 of women's fashion.
- Separate images into those belonging to 1920s, - those belonging to the 1950s?



- How is it that you can do this without any written documentation?
- Answers are directed by visual clues - "reading" images - employing visual literacy.
- Can you identify clues which tell you "1920s"? those for "1950s"?

How visually literate are you?

- ✦ Can you read these images?
- ✦ They are all paintings of women, made in a number of different centuries.
- ✦ What century do following paintings come from?
- ✦ How do you know this?
- ✦ How many can you name?
- ✦ Who are the artists?
- ✦ What clues do you read to identify the century?
- ✦ And artist?

BUSINESS

Influences on business environments

Influences in the business environment

- Business environment - not isolated.
- Business environment exists within other environments - influenced by these environments.
- Degree of control businesses have over control factors differ from one environment to the next.

Control of the micro environment

- ✱ Control factors in the micro environment - under control of enterprise's management.

Element	Description	Control
Vision, mission, strategy and objectives	◆ Written statements of what a business enterprise hopes to achieve.	◆ Management determines a business enterprise's vision, mission, strategy and objectives. ◆ Management has full control over a business enterprise's vision, mission, strategy and objectives.
Organisational resources	◆ Means / resources available to a business enterprise - human resources, capital resources, natural resources and entrepreneurial resources.	◆ Management decides which resources are required to run a business. ◆ Management has full control over organisational resources.
Management	◆ People responsible for running a business.	◆ Managers and leaders - appointed by a business. ◆ Business chooses people it employs.
Business functions	◆ Eight business functions can be identified. ◆ Functions - different departments in a business enterprise.	◆ Management determines how each department is managed, what functions of each department are - what each department is responsible for. ◆ Various business functions are under management's control.

CAT

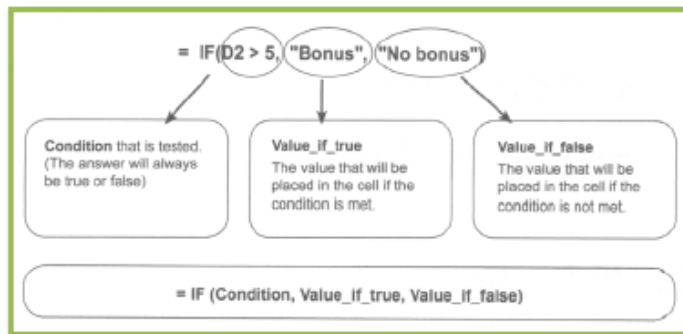
Decisions and charts

The IF function

- IF function allocates a value to a cell according to the result of the condition(s) specified

	A	B	C	D	E
	Surname	Name	Monthly salary	Number of years in service	Bonus
1					
2	Barkley	Jenny	R 8,300.00	2	No bonus
3	Backer	Charles	R 7,600.00	13	Bonus
4	Bivsh	Eben	R 9,700.00	2	No bonus
5	Clifford	Carry	R 8,400.00	1	No bonus
6	Chyda	Jenna	R 8,000.00	9	Bonus
7	Harper	John	R 6,000.00	10	Bonus
8	Jacobs	Johnny	R 9,600.00	12	Bonus
9	Jenkins	Trevor	R 8,600.00	4	No bonus
10	Masipa	Gene	R 7,000.00	4	No bonus
11	Mason	Thom	R 5,900.00	7	Bonus
12	Mataboge	Francis	R 9,300.00	6	Bonus
13	Mcguire	Mavis	R 9,500.00	4	No bonus
14	Naicker	Elizabeth	R 6,700.00	2	No bonus
15	Sandown	James	R 8,500.00	5	No bonus
16	Victor	Shaun	R 8,600.00	11	Bonus

- IF function used in E2 is:



IF function consists of three arguments, namely:

- Condition - expression has result of true / false.
- Operators are =, >, >=, <, <= and <>, used with constant values (text / number), formulas / cell references.
- Value_if_true.
- Value_if_false.
- Text value always placed in double inverted commas.

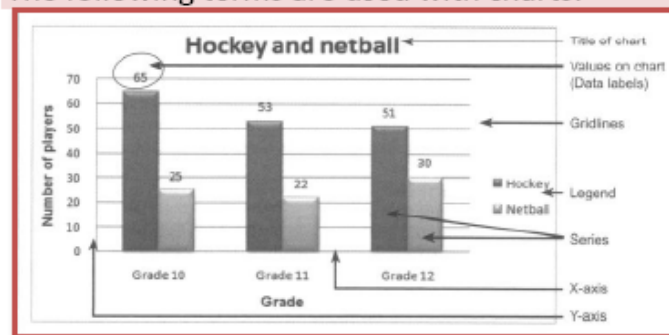
Value - number, cell reference, formula/ function / text value.

Charts

Creating charts

- Chart - visual representation of data, results.
- Charts simplify comparison of data, recognition of patterns, making of forecasts.
- Data on which chart is based, changed, chart will automatically update itself.

The following terms are used with charts:



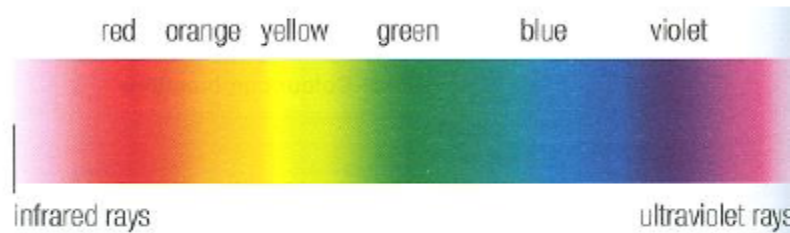
CONSUMER

Colour theory

Colour terminology, classification and the colour wheel

What is colour?

- Property of light.
- Without light, would be no colour.
- Visible light made up of wavelengths of light between infrared and ultraviolet radiation called spectrum.
- Eyes see only a small part of spectrum.

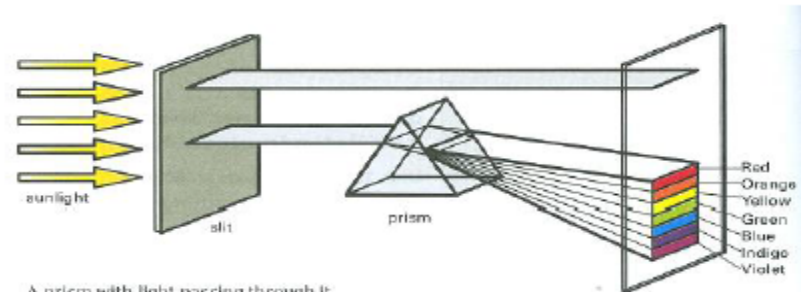


The colour spectrum.

- When natural light passed through a prism, separates into bands of violet, blue, green, yellow, orange and red to form a spectrum of rainbow.
- Light strikes an object, rays absorbed while others are reflected.
- Surface that we call red actually absorbs almost all colours in light except red.

Colour terminology

- Different colour theories that try to explain what colour are and how it works.
- To describe a colour, need at least three terms: hue, value and intensity.



A prism with light passing through it.

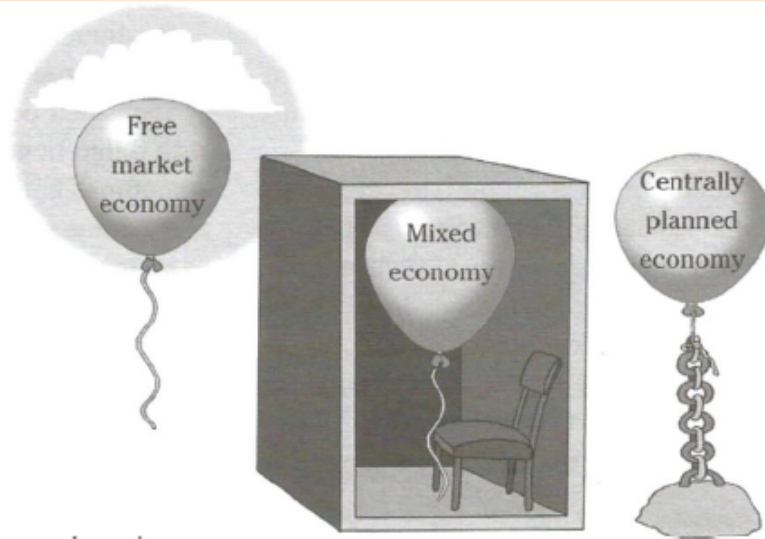
Some colour terminology

Colour term	Description
Hue	Property by which colour is recognised and described, e.g. red, green, blue, yellow or blue-green. All colours with hue are called chromatic colours
Value	The relative lightness or darkness of a colour, measure of the degree to which light reflects off colour. White reflects most light.

ECONOMICS

Market, centrally-planned and South Africa's mixed economy

Different economic systems



The three economic systems

Most important reasons for countries following a particular economic system are:

- ◆ Stage of development of a country
- ◆ System of government in a country
- ◆ Preferences of inhabitants of the country
- ◆ Language, culture, tastes, customs, environmental factors - what crops can be grown.

- Economic systems can be reduced to two extremes on either side of a continuous range with various combinations of the two in between.
- Two extremes = free-market economy + centrally-planned economy.
- Centrally-planned economy is fixed - planned by government.
- In practice, there is no pure economic system, most economies are a mixture of two extremes.

The free-market economy

- Free-market economy, - capitalism - uses supply and demand to respond to questions of what, how, for whom to produce goods and services.

In a free-market economy, economic activities are regulated by:

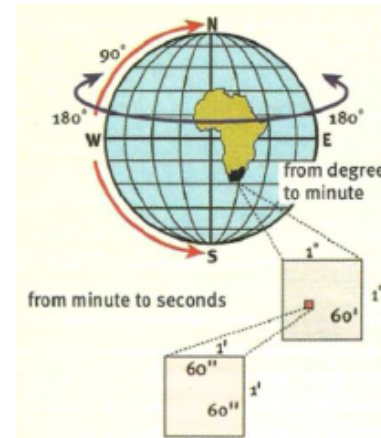
- Decisions / actions of consumer, - person who demands and pays for consumer goods and services
- Decisions / actions of supplier, - person concerned with supply of goods and services
- Pricing of goods and services
- Profits to be made from selling goods and services.

GEOGRAPHY

Mapwork skills

Locating exact position (revision)

- Absolute position of each place / object that occurs on the Earth's surface - located by means of geographic co-ordinate system - latitude and longitude.
- Specific location = geographic co-ordinate pair.
- Pair consists of latitude north / south of equator - longitude east / west of Greenwich.
- Any place on Earth found at the point at which its line of latitude and line of longitude intersect.
- Latitude-longitude reference of a place - always write latitude first - then longitude.
- SA lies south of the equator - east of Greenwich.
- Locations of all places + objects in South Africa will be indicated as south and east.
- Each degree (°) can be subdivided into 60 minutes (') - each minute divided into 60 seconds (").
- Subdivision enables us to determine / plot the position of any place / object very accurately.
- Geographic co-ordinates must be described in full - degrees, minutes + seconds south and east.

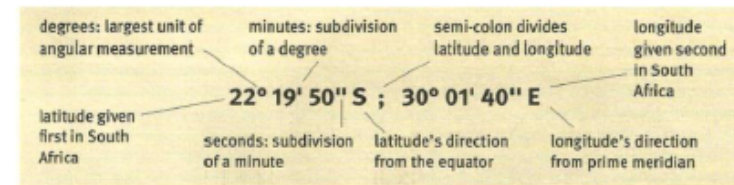


The relationship between degrees, minutes and seconds

Locating relative position (revision)

What is direction?

- Refer to direction - points of a compass card to describe general direction from one feature to another.
- These points = wind directions.



How to write co-ordinates correctly

HISTORY

The power struggle (Stalin versus Trotsky/ Nationalism versus Internationalism)

- After Lenin's death - two most outstanding surviving leaders of Communist Party = Stalin and Trotsky.
- Stalin - General Secretary of the party.
- He exercised great personal influence over many party members - in his power to appoint and dismiss people from positions.
- Trotsky - Commissar for War and head of Red Army, + important thinker in his own right.
- Some people within the Communist Party feared he might try to take power by force - establish a military dictatorship.
- Result - when Lenin fell ill for the first time in 1922, Stalin, with 2 of his colleagues, Zinoviev, and Kamenev, formed a troika - informal alliance, to keep Trotsky out of power.



Photograph of Stalin in the 1920s

- Lenin recognised Stalin and Trotsky as 2 leading contenders for the leadership of the party after his death.
- He wrote the following in his 'Political Testament' of 25 December 1922:

'Comrade Stalin, having become General Secretary, has unlimited authority in his hands, and I am not sure that he will always be capable of using that power with enough caution. Comrade Trotsky, on the other hand ... is marked by his outstanding ability. He is personally perhaps the most able man in the Central Committee [of the Communist Party], but he has displayed **excessive** self-confidence and excessive concern with the purely administrative side of the work.'

In a postscript to his Political Testament, dated 4 January 1923, Lenin added: 'Stalin is too rude and this defect, although quite tolerable [bearable] in our midst and in dealing amongst us Communists, becomes intolerable in a General Secretary. That is why I suggest that the comrades think about a way of removing Stalin ...'

Quoted from P. Oxley, *Russia 1855-1991, From Tsars to Commissars*, Oxford, 2001, p.144

- After Lenin's death, Soviet Communist Party faced a key question: *What should be done about economic policy?*
- NEP - clearly not in line with socialist thinking - allowed private enterprise, open market, and existence of a middle-class.
- Some peasants + traders were becoming noticeably rich.

HOSPITALITY

Menu planning

Principles of menu planning

Types of menus

- ◆ Menu - combination of dishes that are served as one meal.
- ◆ Menu can consist of three or more courses.
- ◆ **Three basic courses =**
 - First course (hors d'oeuvres / starters),
 - Main course
 - Dessert.
- ◆ Coffee, tea, friandises, bread + cooldrinks do not count as courses.

Principles to consider when planning a menu

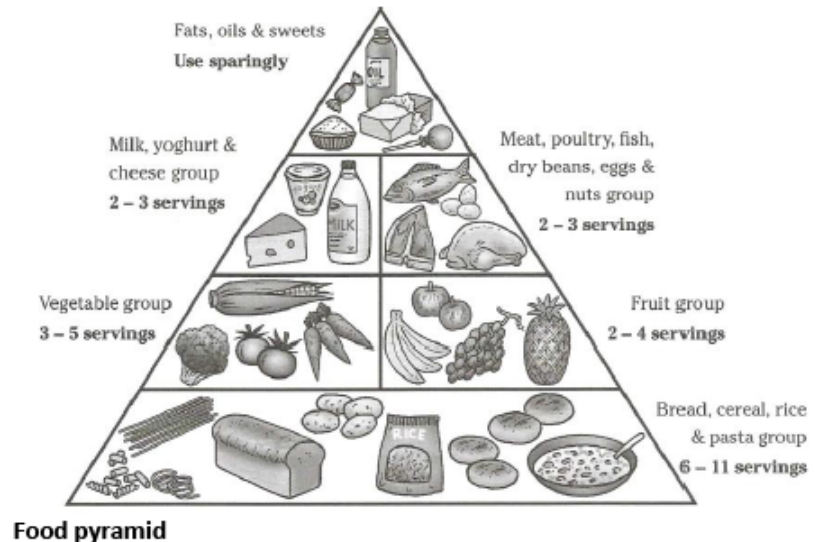
- When you plan a menu, keep the food pyramid in mind in order to balance the meal + ensure the meal is nutritious in its composition.

Consider the basic principles listed below when planning menus:

- Consider the premises + equipment that are available.
- If space is limited, it will be difficult to produce a large variety of dishes.
- Consider the amount of time, equipment + staff needed to prepare meals.
- Limited space gives staff little room in which to work and

serve.

- Consider using seasonal foods, cheaper, easier to obtain, of better quality, and use local commodities.
- Select foods that guests are familiar with and like.
- Keep within given budget for each meal.
- Consider special dietary needs, - vegetarian and diabetic needs, + energy requirements.
- Active people need more kilojoules than office workers.
- Men require a higher kilojoules intake than women.



IT

Data maintenance

Dataset states

- ✦ Dataset of records, e.g. table in specific mode / state
- ✦ State determines which maintenance tasks allowed to be performed on records in table

- ✦ Change state property of dataset
- ✦ Call method that automatically places dataset into particular state
- ✦ change certain properties of ADOTable component

Some states of a table listed in table below:

State can be changed in following ways:

State	Meaning	How state can be obtained
dsInactive	✦ connection between database, application is closed ✦ No operations / actions can be performed on dataset	✦ Call Close method of ADOTable component ✦ Set Active property of ADOTable to False in OI / enter programming code to perform task
dsBrowse	✦ Content of records can be viewed but not changed ✦ When connection established dataset is placed in Browse state by default	✦ Call Open / Cancel method of ADOTable component ✦ Set Active property of ADO Table in OI to True / enter programming code to perform task ✦ Click Cancel Button on DBNavigator
dsEdit	✦ Active (current) record can be modified	✦ Call Wdit method of ADOTable component ✦ Edit data in displayed in DBGrid, DBEdit / DBCheckBo ✦ Click Edit Button on DBNavigator
dsInsert	✦ Allows new record to be added to database	✦ Call Insert method of ADOTable component ✦ Click Insert Button on DBNavigator

LO – Life Orientation

Development of the self in society

Plan and achieve life goals: Apply life skills as evidence of ability

Types of goals

- ✱ Goal - something you try to achieve.
- ✱ Setting goals - live life to fullest.
- ✱ Goals help to focus, motivate, and inspire you.
- ✱ Goal - different from wish, dream, - take action.
- ✱ Set goal, - take action to achieve it.

Goals are useful because they:

- ◆ Give direction, move from where you are to where you want to be.
- ◆ Take charge of future, allow you plan.
- ◆ Personal, unique, special, - describe things you want to do, be most in life.

- ✱ Goal-setting is a life skill.

Other life skills that will help you set, achieve goals include:

- Problem-solving
- Decision-making
- Self-management
- Reflection and evaluation
- Time management

There are three types of goals:

Short-term goals	◆ Goals you achieve in short time, week, month, and few months. ◆ Set short-term goals - achieved in less than year.
Medium-term goals	◆ Goals aim to achieve in 1-3 years. ◆ Shorter than long-term goals. ◆ Longer than short-term goals.
Long-term goals	◆ Life goals aim to achieve in more than 3 years.

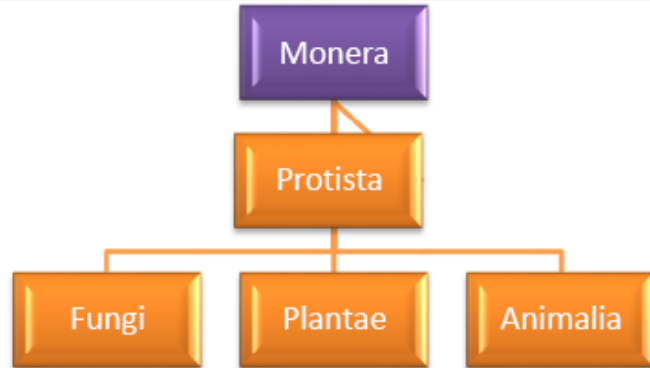
- ✱ Set short-term, medium-term goals - achieve long-term goals.

Steps in planning and goal-setting

- Don't set goals, hopes, wishes, dreams stay in head.
- Goal real when you take action by setting goal, planning how to achieve goal.
- Decide what you want → set goals to help you get it.
- Plan how will achieve each goal.
- Better plan goals, easier achieve them.
- First step write down your goals.
- People, who write goals down, plan how to achieve goals, better chance of achieving them.

LS – Life Sciences

Micro-organisms 1 - Bacteria and viruses



The world of micro-organisms

- Micro-organisms made up of single cell.
- Unicellular organisms tiny that they can only be studied with microscope.
- First living things on Earth were simple unicellular organisms.
- All other life forms evolved from micro-organisms over millions of years.
- Today micro-organisms still most numerous of all organisms, live in wider range of habitats than any other species.

Classification of micro-organisms

- Micro-organisms found in kingdoms Monera, Protista and Fungi, most of them are found in kingdom Monera.
- Monera include bacteria, spirochaetes, rickettsias viruses.

Structure, characteristics and role of bacteria

- ✧ Bacteria are most successful of Monera - more bacteria inhabit handful of soil / human mouth / skin than total number of people who have ever lived.
- ✧ Wherever we find life, Monera present.
- ✧ Species of bacteria live in habitats too hot, cold, salty, acidic / alkaline for any other group of organisms.

Structure of bacteria

- ◆ Bacteria all share same structure, even though they vary in shape.
- ◆ They can occur singly / in chains / clusters.

Diagram below shows structure of typical bacterium.

Mechanical Technology

Tools

A dial gauge

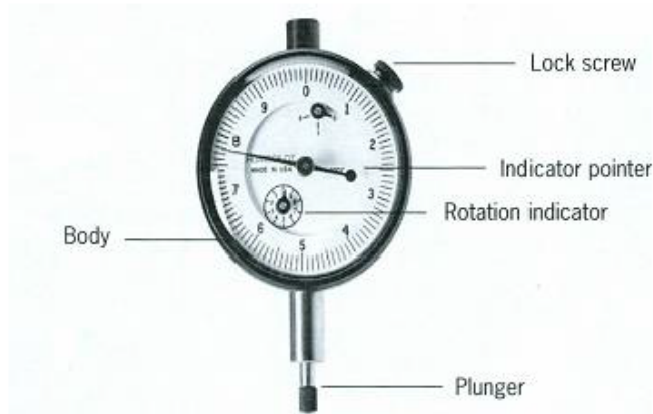


Figure 2.1: A dial indicator

- Dial indicators are used as precision-measuring tools in setting up of work on machinery such as centre lathes or milling machines
- Dial gauge magnifies actual linear motion of plunger
- This highly accurate and versatile measuring instrument has a plunger attached to a rack and pinion for magnification
- A pointer on graduated dial shows amount of movement

- Outer rim is rotated so as to set pointer to 0 and then clamped into position
- Dial indicator is marked off in hundredths of a mm

Uses of a dial indicator

A dial indicator is used to determine:

- 'runout' of a flywheel
- If a crankshaft is bent
- If a work piece in a lathe is running true
- If 2 pieces of equipment are same size
- Bearing nip on a bearing shell used on a crankshaft
- End float on a crankshaft

Care of a dial indicator

- Over travel of the pointer on scale must not result in damage to dial indicator
- Care must be taken that dial indicator is not knocked over since sensitivity dial will be damaged
- Store dial indicator in a proper storage place after use
- Clean dial indicator, including its magnetic base after use

PS – Physical Sciences

Measurement and proportionality

How to relate sets of numbers

- Science is about measurement.
- Measure, make a model - measure again to test model.
- Experiments give us sets of numbers; know how these numbers are related to each other.

There are two types of relationships

Direct proportion	Inverse proportion
Both sets of numbers increase / decrease together.	Sometimes one set of numbers increases / decreases faster than the other.

Simple direct proportion

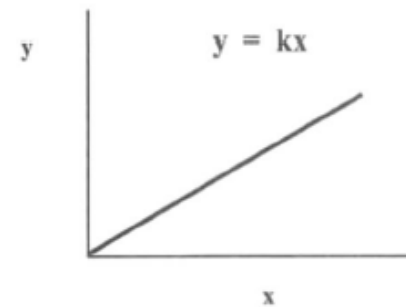
- Both sets of numbers increase / decrease together.
- Test numbers by dividing one number by the other.
- Answer always equals the same = numbers are in direct proportion.

$$y \propto x \quad \text{or} \quad y/x = k \text{ (constant)} \quad \text{or} \quad y = kx$$

y	x	y/x
60	15	4
30	7,5	4
20	5	4
5	1,25	4

Graph of $y = kx$ = straight line through the origin.

Gradient of graph gives constant k



Direct square proportion

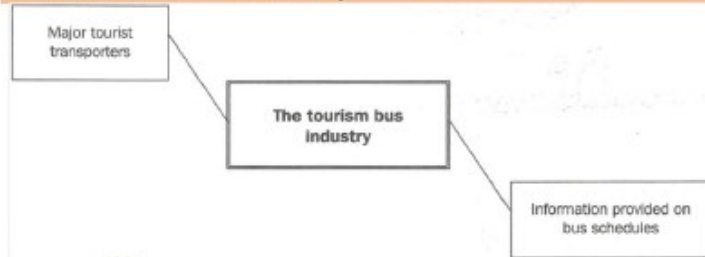
- Sometimes one set of numbers increases / decreases faster than the other.
- First square one set of numbers, then test by dividing.
- Answer is a constant - relationship is a direct square proportionality.

$$y \propto x^2 \quad \text{or} \quad y/x^2 = k. \quad \text{or} \quad y = kx^2$$

y	x	x ²	y/x ²
1	2	4	0,25
2,25	3	9	0,25
4	4	16	0,25
6,25	5	25	0,25

TOURISM

The tourism bus industry



Major tourist transporters

- ◆ Buses play a major part in tourism industry.
- ◆ Many tourists around the world prefer not to drive, use a bus to view local attractions / scenery.
- ◆ In South Africa we have a well organised network of bus transport services.

Different types of buses

- ✱ Minibuses
- ✱ Minibuses carry smaller loads of passengers.
- ✱ Minibus



Minibus

Coaches



Single-decker bus



Double-decker bus

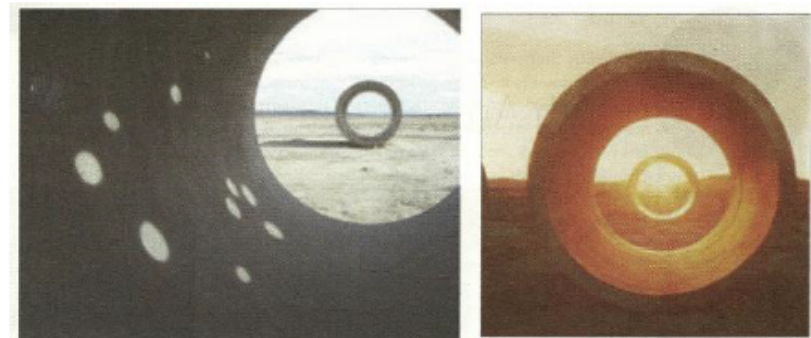
- Bus used for transporting tourists - little more luxurious than ordinary bus= coach.
- Most common type of coach - single-decker bus.

VA – Visual Arts

Earth Art Robert Smithson

- Earth art, Land art or Environmental art are artworks created in nature, actively using natural materials and sometimes also introducing manufactured materials.
- Land art is a term that was predominantly used in the 1960s and 1970s
- It refers to large-scale, artwork made outdoors on the land, but not necessarily ecologically focused.
- Land art forms are usually large scale environmental sculptures that use the natural environment both as a site and as the materials for the creation.
- The landscape is manipulated in many of these works.
- Some earth or land art forms focus on the interaction of the environment and human activity.
- The relationship between the artist and the environment is also a topic that is regularly explored.
- Environmentalist art or Eco art is a broad term encompassing ecologically responsive artworks.
- Earth artworks were created in opposition to the commodification of art and as a revolt against traditional painting and sculpture.
- This standpoint shows the influence of Conceptual art.

- Earth artworks are usually in open spaces, but can also be exhibited inside a gallery.
- When an Earth artwork is created in an open space it is usually done as an interaction with that specific space and therefore the term 'Site-specific art' is used to describe it.
- This aspect shows the influence of Minimalism as they emphasized the idea of interaction between the artwork and the surrounding space.
- Many Earth artworks are ephemeral and therefore it is documented photographically to show its creation, final product and process of deterioration.



NANCY HOLT. **SUN TUNNELS**. 1976. IT CONSISTS OF FOUR LARGE CONCRETE TUNNELS Laid OUT IN THE DESERT IN AN OPEN X CONFIGURATION. THE NINE FOOT DIAMETER, 18 FOOT LONG "TUNNELS" ARE PERCED BY HOLES OF VARYING SIZE, THAT CORRESPOND WITH THE PATTERN OF SELECTED CELESTIAL CONSTELLATIONS. THERE IS A TUNNEL FOR DRACO, PERSEUS, COLUMBA AND CAPRICORN.