

S2 Final Assessment Revision Booklet B MP3



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Scale Drawings

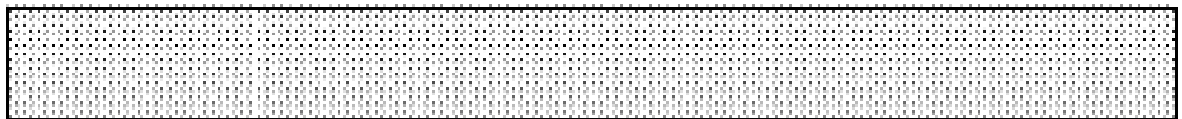
Exercise 1 (You will need a ruler for this exercise).



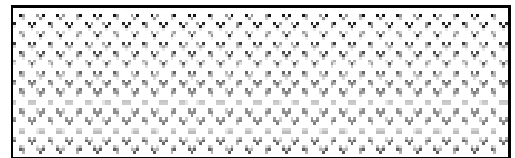
1. This scale drawing of a hallway is drawn to the scale of $1\text{ cm} = 2.5\text{ m}$.
 - (a) Measure the length and breadth of the hallway in the scale drawing.
 - (b) Calculate the real length and breadth of the hallway.



2. This red carpet for a movie premier has been drawn using a scale of $1\text{ cm} = 3\text{ m}$.



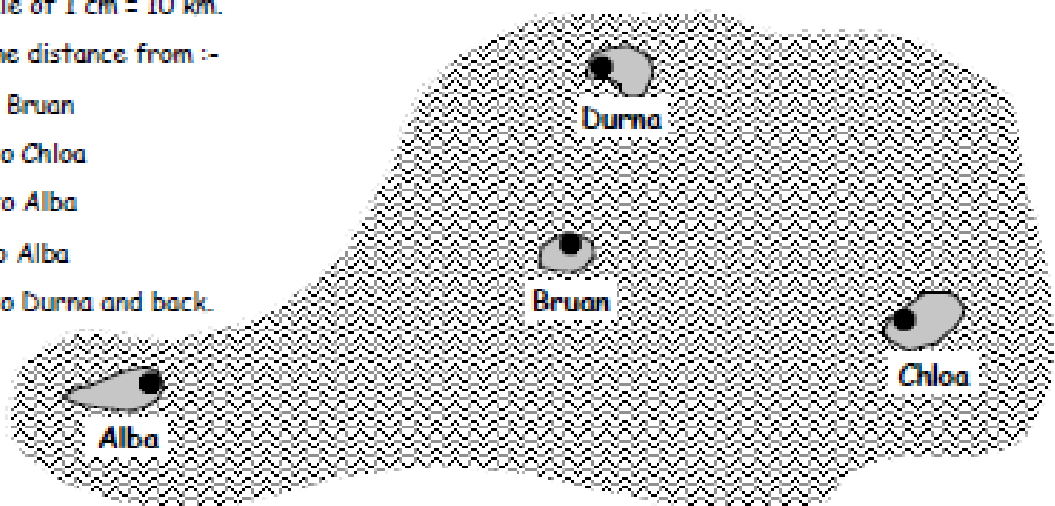
- (a) Calculate the real width of the carpet.
 - (b) Calculate the real length of the carpet.
3. A field has been drawn using a scale of $1\text{ cm} = 7\text{ m}$.
 - (a) Calculate the real length of the field.
 - (b) Calculate the real width of the field.
 - (c) Calculate the real length of the diagonal path.



4. The map shows a group of islands drawn using a scale of $1\text{ cm} = 10\text{ km}$.

Calculate the distance from :-

- (a) Alba to Bruan
- (b) Bruan to Chloa
- (c) Durna to Alba
- (d) Chloa to Alba
- (e) Bruan to Durna and back.

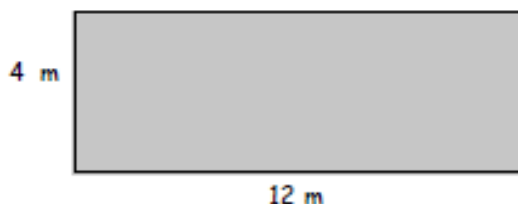


Scale Drawings

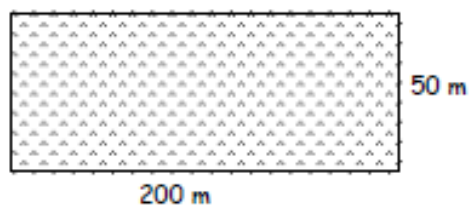
Exercise 2 (You will need a ruler for this exercise).

1. This is the sketch of a rectangular room.

Make an accurate drawing using a scale of $1 \text{ cm} = 2 \text{ m}$.



- 2.

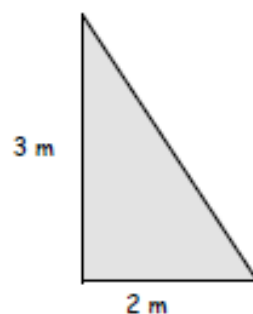


Shown is a large rectangular field.

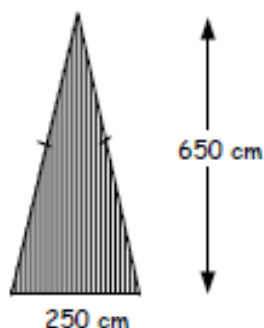
Make a scale drawing using a scale of $1 \text{ cm} = 20 \text{ m}$.

3. The sail of a model yacht is as shown. It is in the shape of a right angled triangle.

Make a neat scale drawing of the sail using a scale of $1 \text{ cm} = 25 \text{ cm}$



- 4.



Each vane of a windmill is in the shape of an isosceles triangle.

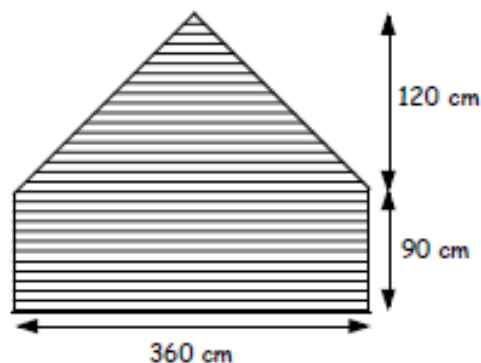
Its dimensions are as shown.

Make a scale drawing of the sail using a scale of $1 \text{ cm} = 50 \text{ cm}$.

5. This sketch shows the side view of a childrens garden house.

It consists of an isosceles triangle on top of a rectangle.

Make a scale drawing of it using a scale of $1 \text{ cm} = 30 \text{ cm}$



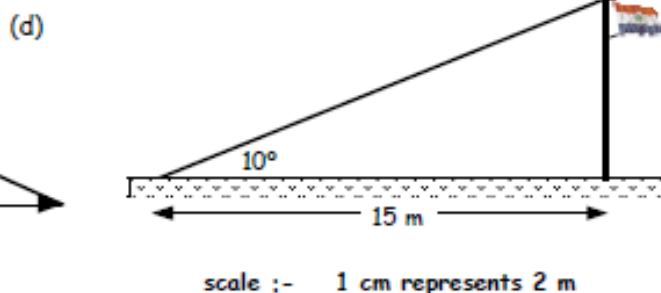
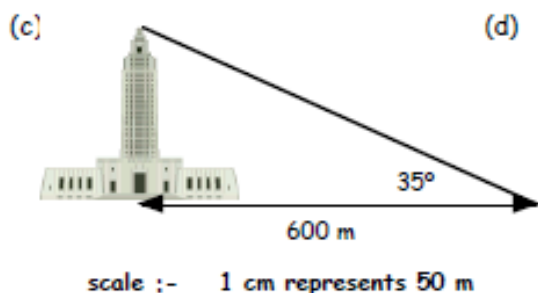
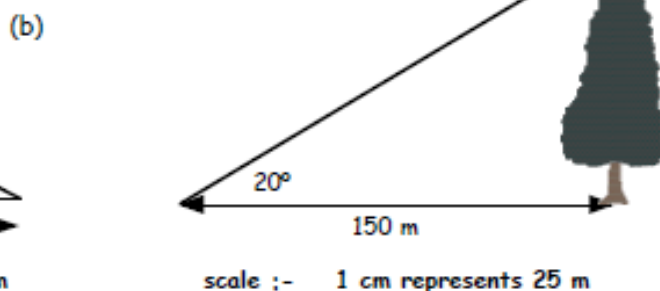
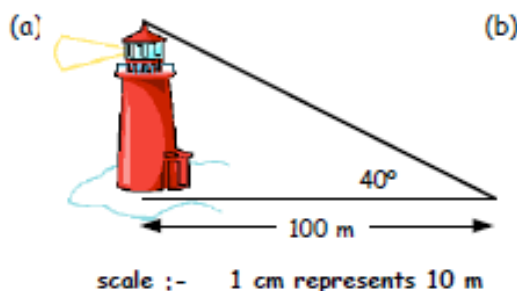
Scale Drawings

Exercise 3 (You will need a ruler and protractor for this exercise).

1. For each of the following,

(i) Make a scale drawing using the given scale.

(ii) Calculate the real height of the given object.



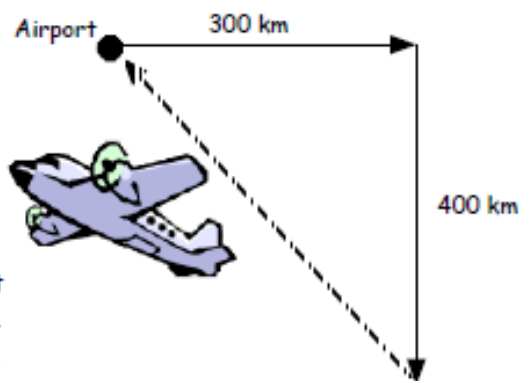
2. An aeroplane leaving an airport flew due east for 300 km and due south for 400 km.

He then discovered he had engine trouble and decided to fly directly back to the airport.

(a) Make a scale drawing of the journey using a scale of 1 cm = 100 km.

(b) When he began to fly back to the airport the pilot noticed he only had enough fuel to travel 520 km.

Can the plane make it back to the airport safely? Explain.



3. A cross country runner from her starting point ran 2 km due west, 3.5 km north then returned directly to the start.

(a) Make a scale drawing to show the runner's journey.

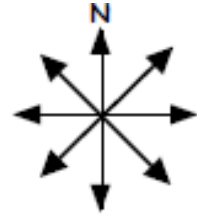
(b) Calculate the total distance she had run. (Show all your working).



Scale Drawings

Exercise 4

1. Copy and complete the compass rose.



2. How many degrees are there from :-

- (a) North to West (clockwise) (b) South to North (anti-clockwise)
(c) South West to North (clockwise) (d) East to North East (clockwise)

3. (a) Bill was facing South East. He made a $\frac{1}{4}$ turn anti-clockwise.

In which direction is he now facing ?

(b) Jane was walking North West and turned 180° .

In which direction is Jane now walking ?

(c) An aeroplane is flying North East.
The pilot turns 135° anti-clockwise.

In which direction is the plane now flying ?



4. (a) Jo was driving due West and turned clockwise to North.

Through how many degree did Jo turn ?

(b) A tractor was travelling South West.

The farmer turns anticlockwise and is now travelling East.

Through how many degrees did the tractor turn ?

(c) A lighthouse shines its light North West.
the light is turned anti-clockwise to South.

Through how many degrees did the light turn ?



5. At an army test range a new tank is on manoeuvres.

To begin with the tank is facing due East.

(a) In which direction must the tank fire to hit the :-

- (i) tree (ii) truck (iii) barn

(b) In what direction is the tank in relation to the :-

- (i) target (ii) barn (iii) car

(c) The tank can turn 22.5° every second.

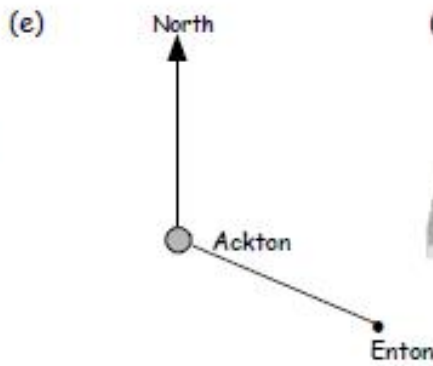
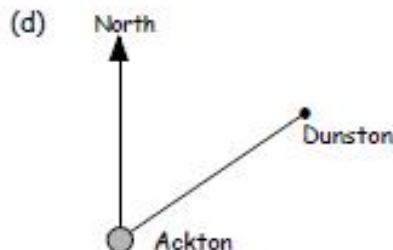
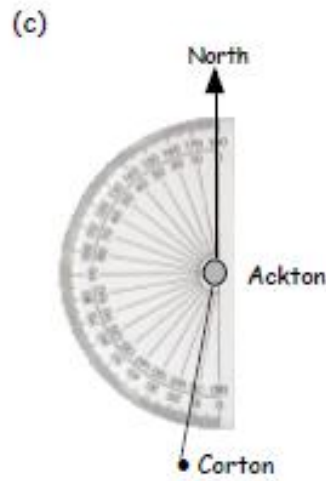
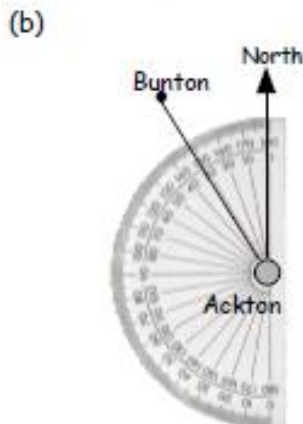
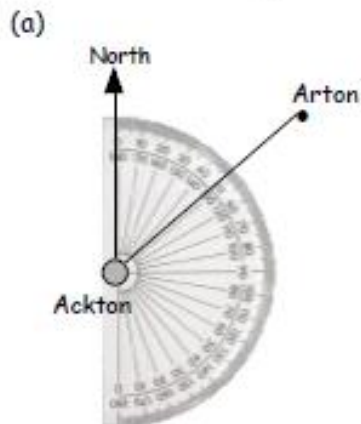
What is the shortest time it takes to turn
from North East to West ?



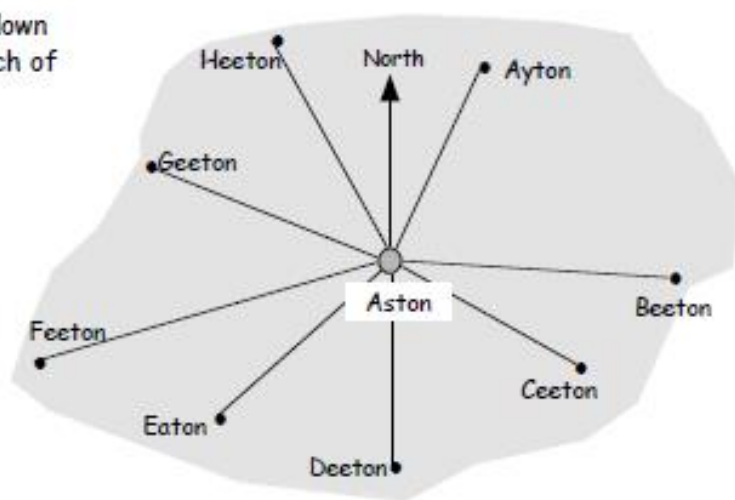
Scale Drawings

Exercise 5 (You will need a protractor for this exercise).

1. Write down the 3-figure bearing for each diagram below :-



2. Use a protractor to write down the 3 figure bearing of each of these towns from Aston.



Scale Drawings

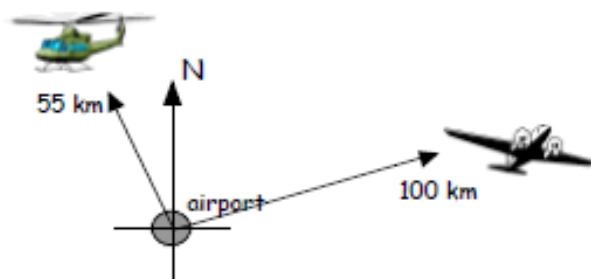
3. Draw (using a protractor) a diagram representing a bearing of 070° .

4. An aeroplane leaves an airport and flies 100 km on a bearing of 080°

A helicopter leaves the airport at the same time on a bearing of 330° and flies for 55 km.

(a) Make a scale drawing of the two journeys using a $1\text{ cm} = 10\text{ km}$ scale.

(b) Calculate the distance between the two aircraft.



5. A boat leaves port and travels 50 km on a bearing of 050° .

At this point the boat changes course to a bearing of 110° and sails for 60 km.

The boat then develops engine trouble and has to sail directly back to port.

The captain estimates the boat will sail for 75 km before the engine fails completely.

Will the boat make it back to port before engine failure?

(Hint : make a scale drawing of the journey).



Revision Exercise (You will need a ruler and protractor for this exercise).

1. Shown is a truck drawn to a scale of $1\text{ cm} = 3\text{ m}$.

(a) Measure the length and height of the model truck.

(b) Calculate the length and height of the real truck.

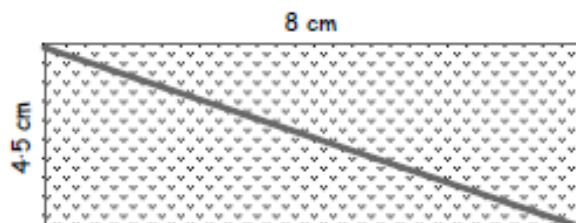


2. Shown is a sketch of a garden with its dimensions given. The scale is $1\text{ cm} = 4\text{ m}$.

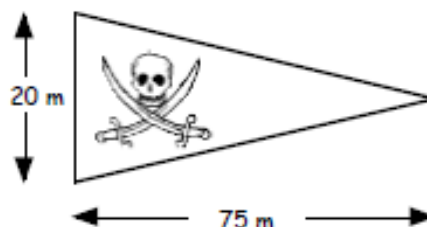
(a) Calculate the real length and breadth of the garden.

(b) Calculate the real length of the diagonal path.

(c) Calculate the perimeter of the garden.



3. Make an accurate scale drawing of this triangular pennant using a scale of $1\text{ cm} = 5\text{ m}$.



Answers

Chapter 17 Exercise 1

- a length 7 cm breadth 3 cm
b $L = 17.5$ m $b = 7.5$ m
- a 4.5 m b 36 m
- a 42 m b 17.5 m c 45.5 m
- a 65 km b 50 km c 80 km d 112 km
e 52 km

Chapter 17 Exercise 2

Check diagrams

Chapter 17 Exercise 3

Check drawings

- a 84 m b 54.6 m c 420 m d 5.5 m
- b Yes (distance 500 km)
- b 9.5 km

Chapter 17 Exercise 4

- Check diagram
- a 270° b 180° c 135° d 315°
- a NE b SE c W
- a 90° b 135° c 135°
- a (i) NE (ii) SW (iii) NW
b (i) N (ii) SE (iii) NW
c 6 secs

Chapter 17 Exercise 5

- a 050° b 330° c 190° d 065°
e 115° f 025°
- Ayton 025° Beeton 095° Ceeton 120°
Deeton 180° Eaton 230° Feeton 255°
Geeton 290° Hecton 330°
- check diagram
- a check drawing b 134 km
- a check drawing b no (dist 95 km)

Chapter 17 Revision Exercise

- a length 4.5 cm height 2.5 cm
b length 13.5 m height 7.5 m
- a 32 m b 34 m c 86 m
- check drawing
- a (i) E (ii) W (iii) S
b S
c (i) Grey Rd (ii) Crow Rd (iii) Pi Rd
- a 035° b 245° c 320°
- a check drawing b 50 km c 147°
- a check drawing b 600 km
- 240°

Substitution

Exercise 6

Evaluating Expressions and Formulae

1. Given $a = 2$, find :-

a $a + 6$

b $2a$

c $5a - 3$

d $(7a + 4) \div 2$

e $4(a + 2)$

f $6(11 - a) - 53$

g $3(a + 1) - 12$

h $5(a + 2) + 15$

i $3(a - 11) + 27$.

2. Given $b = 3$, $c = 5$ and $d = -1$, evaluate :-

a $b + c + d$

b $2b - c - 3d$

c $\frac{1}{2}(bc + d)$

d $3bcd$

e $cdb - dbc$

f $0.5(bd - cd)$.

3. a If $f = 2$, $g = 4$ and $h = -2$, find e , given $f + g + h + e = 10$.

b If $p = 3$, $r = -3$ and $s = 2$, find t given $st - prs = 12$.

Answers

Exercise 6 - Evaluating Expressions and Formulae

- | | | | | | |
|---|----|---|----|---|---|
| a | 8 | b | 4 | c | 7 |
| d | 9 | e | 16 | f | 1 |
| g | -3 | h | 35 | i | 0 |
- | | | | | | |
|---|-----|---|---|---|---|
| a | 7 | b | 4 | c | 7 |
| d | -45 | e | 0 | f | 1 |
- | | | | |
|---|---|---|----|
| a | 6 | b | -3 |
|---|---|---|----|

Statistics

Exercise 1

Bar Graphs & Line Graphs



1. A group of children were asked to name their favourite drink.
The results are shown in the bar-graph below.

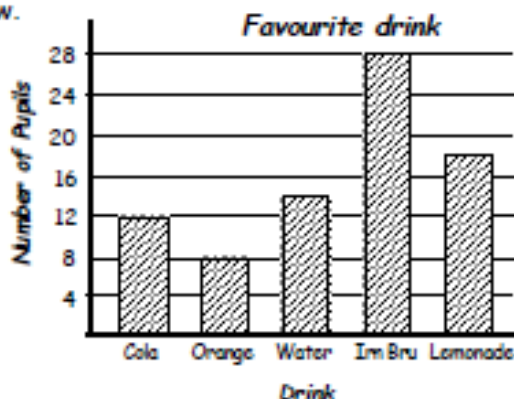
a How many children chose :-

- (i) Cola (ii) Orange
(iii) Water (iv) Irn Bru
(v) Lemonade?

b List the drinks in order of most to least popular.



c How many children were asked in the survey?



2. A primary 5 class were asked about the towns they had visited.

London	Inverness	Carlisle	Newcastle	Leeds	Liverpool
6	8	3	7	1	5



Draw and label a neat bar graph to show this information.

3. Pupils in the Primary 7 classes were asked to name the most commonly used vowel.
The table shows their list of answers.

- a Make a frequency table and use tally marks to complete it.
b Draw and label a neat bar graph from your frequency table.

A	E	A	E	I	O	U	A	E	E	E	E	E	E	E
U	I	A	E	A	E	I	O	U	A	E	E	E	E	E
E	E	U	I	A	E	A	E	I	O	U	A	E	E	E
E	E	E	E	E	E	U	I	A	A	O	E	O	E	E

4. The line graph shows the height of a plant over a period of time.

a How tall was the plant after :-

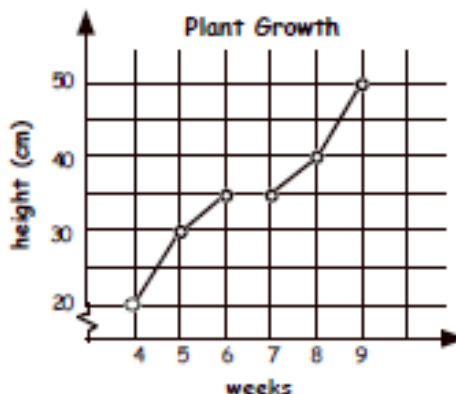
- (i) 4 weeks (ii) 5 weeks
(iii) 9 weeks (iv) 7 weeks?

b On which week was the plant :-

- (i) 35 cm (ii) 40 cm tall?

c One week the plant was not given any water. Which week do you think it was?

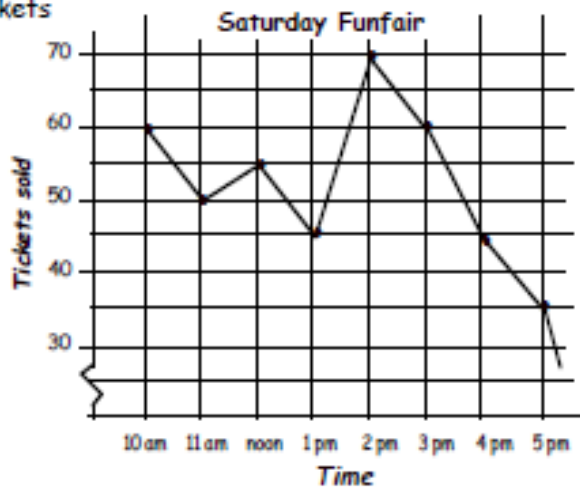
d Estimate the height of the plant at $8\frac{1}{2}$ weeks.



Statistics

5. The line graph shows the number of tickets sold each hour at a Saturday Funfair.

- How many tickets were sold :-
 (i) at 10 am (ii) at 11 am
 (iii) at 12 noon (iv) at 5 pm ?
- What was the main peak time (most tickets sold) ?
- Between which two times was there the biggest increase in ticket sales ?
- Why do you think the ticket sales dropped after two o'clock ?



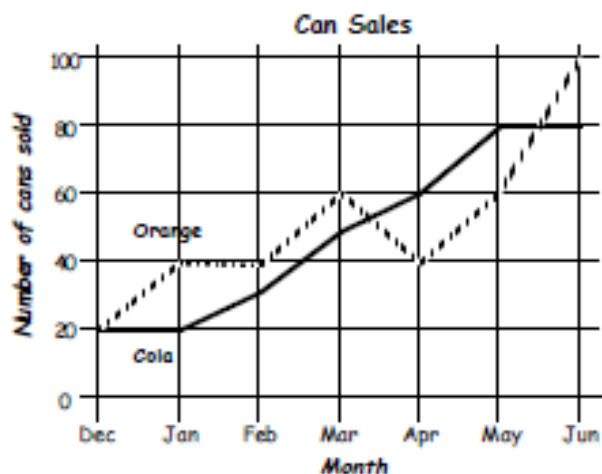
6. Another plant's height was recorded over a period of time.

Use the information from the table shown to draw a line graph.

Week 4 - 25 cm	Week 5 - 30 cm
Week 6 - 35 cm	Week 7 - 40 cm
Week 8 - 50 cm	Week 9 - 65 cm

7. The comparative line graph shows the sales of Orange and Cola from the tuck shop.

- Which drink sold better in :-
 (i) January (ii) March
 (iii) April (iv) June ?
- How many cans of Cola were sold in :-
 (i) January (ii) June ?
- How many cans of Orange were sold in total ?



8. This table shows 6 months of car sales from two different car dealers, Arnold Clunk and Reg Barney.

Construct a comparative line graph to show this information.

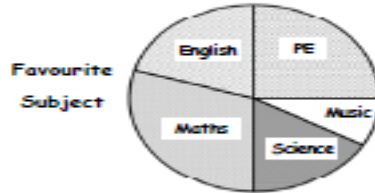
	Jul	Aug	Sep	Oct	Nov	Dec
Clunk's	100	250	300	250	400	200
Barney's	300	200	350	450	100	150

Statistics

Exercise 4 Interpreting & Drawing Pie Charts



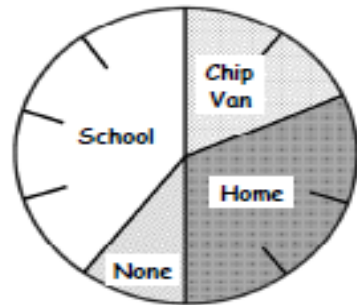
1. A class surveyed the most popular schoolday and favourite subject. The results are displayed using the pie charts below.



- Write the classes' favourite :- (i) schoolday (ii) subject.
- List the favourite days in order, from most popular.
- List the favourite subjects in order, from least popular.

2. The pie chart, which has been split into 10 sections, shows the results of a class survey into favourite lunchtime places to eat.

- What fraction of the class chose :-
 (i) Chip Van (ii) Home
 (iii) None (iv) School.
- List the places in order, from most popular to least popular.



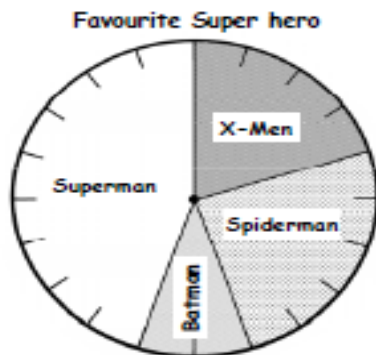
3. Look at the pie chart in question 2.

50 pupils were asked their favourite lunchtime place.

- How many pupils does each individual section stand for ?
- How many pupils chose :-
 (i) School (ii) Chip Van (iii) Home (iv) None ?



4. This pie chart has been divided into 20 equal parts.



- What fraction does each part stand for ?
- What fraction represents :-
 (i) Superman (ii) X-Men
 (iii) Spiderman (iv) Batman ?

100 people were questioned in the survey.

- How many people does each small section represent ?
- How many people chose :-
 (i) Superman (ii) X-Men
 (iii) Spiderman (iv) Batman ?

Statistics

Exercise 6

Mean and Range



1. The range (= highest - lowest).

For each set of data, find the RANGE of numbers :-

- a 7, 9, 8, 12, 6, 15, 8, 7, 10, 10, 12, 5, 9, 11
b 73, 57, 44, 11, 33, 8, 26, 1, 4, 2, 74, 16, 15, 7.

2. Find the mean of :-

- a 8, 10, 12, 14
b 14, 50, 23, 41, 62, 50
c £2, £5, £8, £26, £20, £11.
d 9.1 cm, 10.3 cm, 7.6 cm, 4.1 cm, 3.9 cm.

3. Ten boxes of matches have their contents counted.

It is found that they contain the following number :-

60, 62, 64, 62, 65, 61, 63, 60, 64, 64.

- a Work out the range.
b Calculate the mean number of matches.
c The Match Company claim that each of their boxes should contain an average of 63 matches.
Is the company's claim correct? (Explain)



4. Tom sat two mental tests (each out of 10). His mean score for the tests was 6.
If Tom scored 9 in the first test, what must he have scored in the second?

Exercise 7

Median & Mode



1. Find the mode for each set of data :-

- a 1, 1, 2, 3, 5, 8, 13, 21, 34, 55
b 3, 2, 1, 8, 4, 5, 9, 2, 7, 6, 0
c 1.7, 2.3, 1.6, 3, 2.3, 3.7, 2.9
d A, C, F, G, H, Y, T, E, D, D, G, H, G.

2. For each set of data, find the MEDIAN :-

(Make sure you put the numbers in order first)

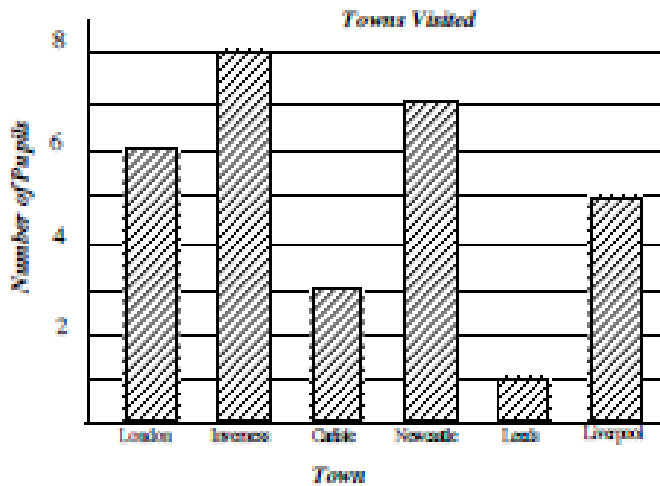
- a 5, 6, 6, 7, 8, 9, 9, 10, 11
b 16, 18, 18, 20, 24, 26, 28, 32
c 17, 9, 3, 9, 9, 5, 7, 13, 11, 15, 15, 9, 9, 7, 1, 1, 17, 15, 13, 13, 7.

Answers

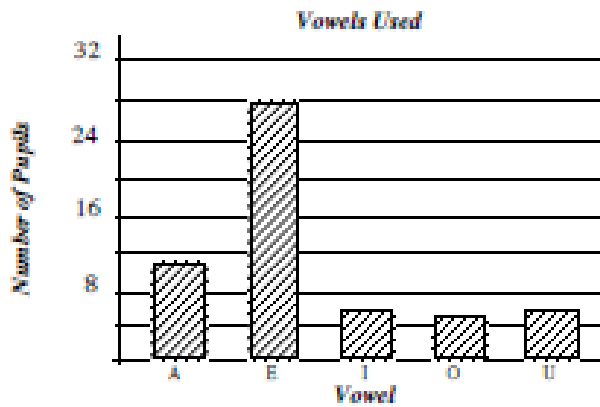
Ch 12 Ex 1 Bar Graphs & Line Graphs

1. a (i) 12 (ii) 8 (iii) 14
 (iv) 28 (v) 18
 b Irn Bru, Lemonade, Water, Cola, Orange
 c 80

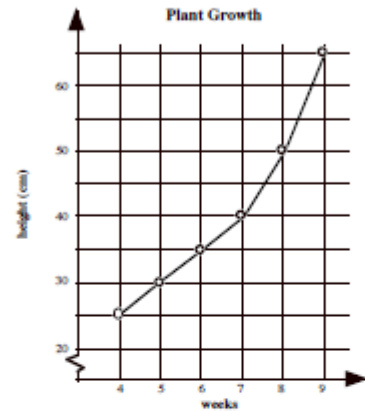
2.



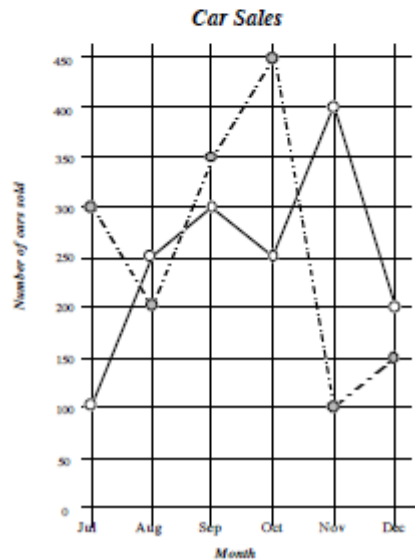
3. a A - 11, E - 28, I - 6, O - 5, U - 6
 b



4. a (i) 20 cm (ii) 30 cm
 (iii) 50 cm (iv) 35 cm
 b (i) 6, 7 (ii) 8
 c 6 d 45 cm
 5. a (i) 60 (ii) 50
 (iii) 55 (iv) 35
 b 2 pm c 1 - 2 pm
 d later - so less time on rides.
 6.



7. a (i) orange (ii) orange
 (iii) cola (iv) orange
 b (i) 20 (ii) 80 c 360
 8.



Answers

Ch 12 Ex 4 Interpreting & Drawing Pie Charts

1. a (i) Friday (ii) Maths
b Fri, Wed, Mon, Thu, Tue
c Maths, PE, English, Science, Music
2. a (i) $\frac{2}{10} = \frac{1}{5}$ (ii) $\frac{3}{10}$
(iii) $\frac{1}{10}$ (iv) $\frac{4}{10} = \frac{2}{5}$
b School, Home, Chip van, none
3. a 5
b (i) 20 (ii) 10
(iii) 15 (iv) 5
4. a $\frac{1}{20}$
b (i) $\frac{9}{20}$ (ii) $\frac{4}{20} = \frac{2}{10}$
(iii) $\frac{6}{20} = \frac{1}{4}$ (iv) $\frac{2}{20} = \frac{1}{10}$
c 5
d (i) 45 (ii) 20
(iii) 25 (iv) 10
- 5.



Ch 12 Ex 6 Mean & Range

1. a 10 b 73
2. a 11 b 40
c £12 d 7 cm
3. a 5 b 625
c No - $62.5 < 63$
4. 3

Ch 12 Ex 7 Median & Mode

1. a 1 b 2
c 23 d 6
2. a 8 b 22 c 9
3. a mean - 17.1 median - 16 mode - 23
b mean - 53 median - 56 mode - 66
c mean - 7.8 median - 8 mode - 1
d 31, 37, 41, 43, 47
mean - 39.8 median - 41 mode - none
4. 45 kg

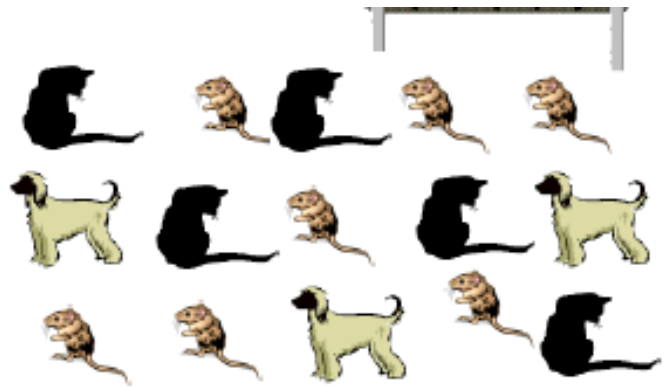
Ratio

Exercise 1

1. Look at the picture.

Write down the ratio of :-

- (a) cats to dogs (b) cats to mice
 (c) dogs to cats (d) dogs to mice
 (e) mice to cats (f) mice to animals.



2. George has a lot of pets. He has 11 mice, 9 goldfish, 4 cats, 3 dogs and a rabbit!

What is the ratio of :-

- (a) mice to goldfish (b) goldfish to cats
 (c) dogs to cats (d) rabbits to mice ?

3. An orchard has 31 apple trees and 27 pear trees. What is the ratio of :-

- (a) apple trees to pear trees (b) pear trees to apple trees
 (c) apple trees to total number of trees (d) pear trees to total number of trees ?

4. January, September and December of last year had 7 days of rain in each month.

Write down the ratio of rainy days to dry days for each of these months.



Exercise 2

1. Simplify each of the following ratios :-


- (a) 4 : 6 (b) 5 : 20 (c) 16 : 2 (d) 3 : 12
 (e) 10 : 50 (f) 15 : 35 (g) 60 : 24 (h) 21 : 35
 (i) 300 : 9000 (j) 18 : 270 (k) 32 : 88 (l) 17 : 51

2. From the picture, write in simplest form the ratio of :-

- (a) oranges to pears
 (b) bananas to pears
 (c) pears to bananas
 (d) pears to oranges
 (e) bananas to fruit.

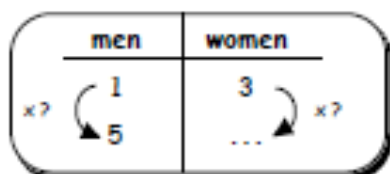


Ratio

3. On a trip to D & M's there were 8 teachers and 120 pupils. Write in simplest form, the ratio of :-
 (a) teachers:pupils (b) pupils:teachers (c) teachers:people (d) people:pupils.
4. Last Sunday there were 36 home wins (H), 16 away wins (A) and 12 draws (D) in the football league. Write in simplest form the ratio of :-
 (a) H:A (b) H:D (c) A:D (d) A:total games.
5. At the school disco there were 12 teachers, 160 boys and 180 girls. In simplest form write the ratio of :-
 (a) teachers:boys (b) boys:girls (c) girls:teachers (d) boys:total attended.
6. Farmer Jackson knows you need 4 sheepdogs for every 90 sheep. 
 (a) Write in simplest form the ratio of sheep:sheepdogs
 (b) Farmer Jones has 135 sheep. (i) How many sheepdogs should farmer Jones have?
 (ii) Write in simplest form the ratio of sheep : sheepdogs.

Exercise 3

1. On a bus the ratio of men to women is 1:3.
 If there are 8 men on the bus, how many women are there?



2. A fish farm has pike and tench in a 4:5 ratio.
 If there are 250 tench, how many pike are there?
3. The ratio of diesel to petrol cars in a car park is 3:5.
 (a) How many petrol cars if there are :-
 (i) 6 diesel cars (ii) 15 diesel cars (iii) 27 diesel cars?
 (b) How many diesel cars if there are :-
 (i) 10 petrol cars (ii) 25 petrol cars (iii) 60 petrol cars?



4. The local curry shop makes curries to different strengths. Which strength of curry is made from :-
 (a) 7 teaspoons of powder and 1 tablespoon of paste.
 (b) 10 teaspoons of powder and 6 tablespoons of paste.
 (c) 6 teaspoons of powder and 22 tablespoons of paste.
 (d) 8 teaspoons of powder and 20 tablespoons of paste.
 (e) 9 tablespoons of paste and 15 teaspoons of powder.
 (f) Aji needs to make a large pot of vindaloo and has 24 tablespoons of paste. How much powder does he need?



Mix in the ratio

Strength	Curry - Powder : Paste
Tindaloo !	7 : 1
Vindaloo	7 : 2
Madras	6 : 3
Medium	2 : 6
Mild	3 : 11

Answers

Chapter 15 Exercise 1

1. a 5:3 b 5:7 c 3:5 d 3:7
 e 7:5 f 7:15
2. a 11:9 b 9:4 c 3:4 d 1:11
3. a 31:27 b 27:31 c 31:58 d 27:58
4. Dec = 7:24 Jan = 7:24 Feb = 7:21

Chapter 15 Exercise 2

1. a 2:3 b 1:4 c 8:1 d 1:4
 e 1:5 f 3:7 g 5:2 h 3:5
 i 1:30 j 1:15 k 4:11 l 1:3
2. a 2:3 b 4:3 c 3:4 d 3:2
 e 4:9
3. a 1:15 b 15:1 c 1:16 d 16:15
4. a 9:4 b 3:1 c 4:3 d 1:4
5. a 3:40 b 8:9 c 15:1 d 5:11
6. a 45:2 b 6

Chapter 15 Exercise 3

1. 24
2. 200
3. a (i) 10 (ii) 25 (iii) 45
 b (i) 9 (ii) 30 (iii) 36
4. a tindaloo b madras c mild d medium
 e madras f 84 teaspoons
5. a 7.5 g b 70 ml

Probability

Exercise 3

Probability as a Fraction



1. A bag contains 4 white balls and 8 black balls. A ball is chosen at random.
What is the probability that it will be black ?

2. A box of chocolates has 8 strawberry creams and 12 coffee creams.
If a chocolate is chosen at random, what is $P(\text{coffee cream})$?



3. A six sided dice numbered 1 to 6 is rolled. Find :-

- a $P(2)$ b $P(\text{even})$ c $P(\text{prime})$ d $P(> 3)$.

4. The names of 15 men and 25 women are put into the office raffle.
If a name is chosen at random, what is the probability that it will be a :-

- a man b woman c neither a man nor a woman ?

5.



A 12 sided spinner is spun until it stops on a number.
Find the following probabilities :-

- a $P(8)$ b $P(\text{odd})$
c $P(\text{multiple of } 3)$ d $P(\text{one digit number})$.

6. In a word game, letters are chosen at random from the word ONOMATOPOEIA.
Work out the following probabilities :-

- a $P(O)$ b $P(E)$ c $P(\text{vowel})$ d $P(\text{not a vowel})$.

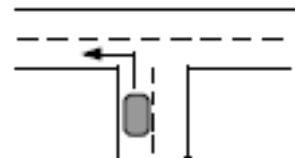
7. A pack of standard playing cards contains 52 cards.

A card is chosen at random. What is the probability that it will be :-

- a a black card b a club c a four
d a red queen e smaller than 5 f a face card ?

8. The probability of my turning left at a T-Junction is 0.35.

What is the probability of me not turning left ?



9.



The probability of choosing a caramel from a box of chocolates is 0.2.
When Bob counted, he discovered there were 6 caramels in the box.
How many chocolates were there in the box altogether ?

Answers

Ch 13 Ex 3 Probability as a Fraction

1. $\frac{8}{12} = \frac{2}{3}$

2. $\frac{12}{20} = \frac{3}{5}$

3. a $\frac{1}{6}$ b $\frac{1}{2}$

c $\frac{1}{2}$ d $\frac{1}{2}$

4. a $\frac{15}{40} = \frac{3}{8}$

b $\frac{25}{40} = \frac{5}{8}$

c 0

5. a $\frac{1}{12}$ b $\frac{1}{2}$

c $\frac{1}{3}$ d $\frac{9}{12} = \frac{3}{4}$

6. a $\frac{1}{4}$ b $\frac{1}{12}$

c $\frac{2}{3}$ d $\frac{1}{3}$

7. a $\frac{1}{4}$ b $\frac{1}{4}$ c $\frac{4}{52} = \frac{1}{13}$

d $\frac{1}{26}$ e $\frac{4}{13}$ f $\frac{12}{52} = \frac{3}{13}$

8 0.65 9 30

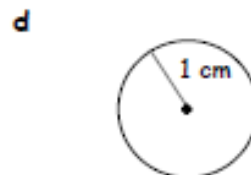
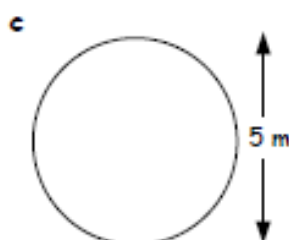
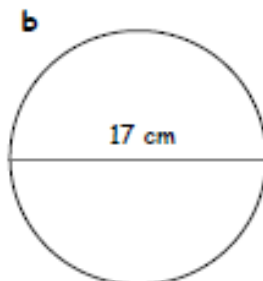
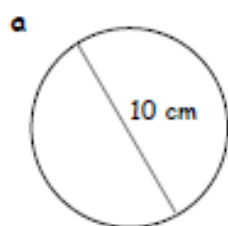
The Circle

Exercise 2

The Circumference (C) of a circle



- Copy and complete.
" The formula for finding the circumference of a circle is $C = \dots\dots\dots$
- Find the circumference of each of the following circles :-



- A satellite orbits 900 km above the earth.
Assuming the radius of the earth is 6350 km, calculate the distance the satellite travels in one orbit.



The Circle

Exercise 1

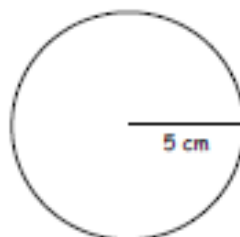
The Area of a Circle



1. Find the area of a circle with radius 5 cm.

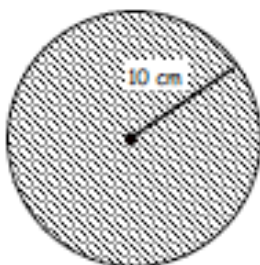
COPY and complete :-

$$A = \pi r^2$$
$$A = 3.14 \times 5 \times \dots$$
$$A = \dots$$

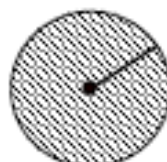


2. Calculate the area of each circle below :-
(You should set down 3 lines of working)

a



b

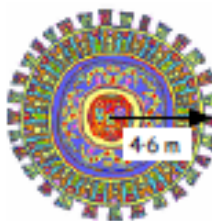


radius = 22.5 mm

3. Calculate the area of the circular carpet shown.

It has a radius of 4.6 metres.

(Round your answer to 1 dec. pl.)



4.



Work out the area of this coloured counter which has diameter 1.8 cm. (Round your answer to 2 dec. pl.)

5. This circular sign has been split into 2 semi-circles.

If the radius of the circle is 12 cm, find the area of the shaded part of the circle.

