



# CUMBERNAULD ACADEMY

Faculty of Mathematics & Numeracy

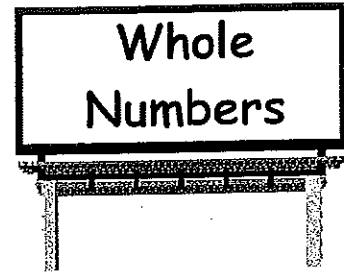


2<sup>nd</sup> / 3<sup>rd</sup> Level

Block 1 - homework booklet

**Chapter 1**

Calculators should NOT be used in this homework chapter except in the final exercise.



**Exercise 1**

1. Write the following numbers out fully in words :-  
 (a) 2007                      (b) 18 050                      (c) 140 010                      (d) 101 007.

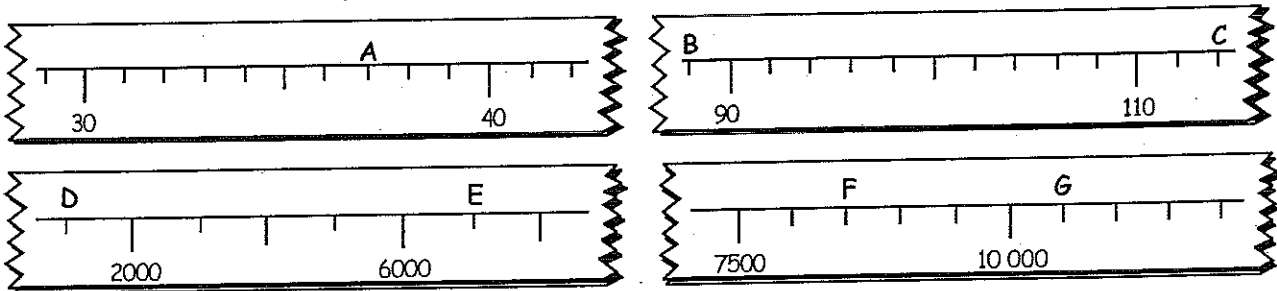
2. Write the following numbers using digits :-  
 (a) five hundred and forty.                      (b) ten thousand and ninety.  
 (c) fifty thousand and two.                      (d) one hundred thousand and ten.  
 (e) seven hundred and seven thousand and seventy.  
 (f) one million, one hundred and one thousand.



3. Put the following numbers in order, smallest first :-  
 399, 3011, 401, 35 002, 30 401, 4001, 40 900, 7001.

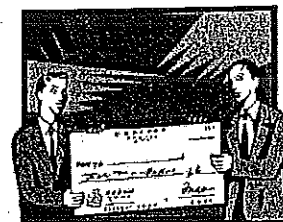
4. Write down the number that is :-  
 (a) 50 after 960                      (b) 500 after 7580                      (c) 3500 before 9050  
 (d) three thousand six hundred before five thousand.  
 (e) half-way between :-    (i) 190 and 230                      (ii) 1500 and 1850.

5. Look at the following scales. What numbers are represented by the letters A, B, C, ...



6. What is the average (mean) of :-  
 (a) 120 and 160 ?                      (b) 180 and 224 ?  
 (c) 3000 and 4500 ?                      (d) 7500 and 8150 ?

7. The millionaire's charity ball was a great success. Mr. Rich donated one and a half million pounds to charity. Write this amount in full.



## Exercise 2

Try to do as much of this exercise as you can mentally.



1. Write down the answers to :-

- (a)  $27 + 34$       (b)  $76 + 37$       (c)  $136 + 85$       (d)  $147 + 135$   
 (e)  $351 + 279$       (f)  $2100 + 3700$       (g)  $4600 + 2700$       (h)  $6450 + 3350$ .

2. Write down the answers to :-

- (a)  $58 - 37$       (b)  $96 - 39$       (c)  $170 - 49$       (d)  $185 - 118$   
 (e)  $270 - 195$       (f)  $865 - 495$       (g)  $3100 - 1200$       (h)  $9750 - 7450$ .

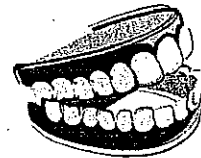
3. Find :-

- (a)  $530 + 880$       (b)  $4320 - 620$       (c)  $5650 + 3700$       (d)  $9980 - 5320$   
 (e)  $5555 + 4445$       (f)  $9090 - 2100$       (g)  $2080 + 3040$       (h)  $9870 - 8990$ .

4. (a) An army plane takes off with 72 soldiers.  
 Forty seven soldiers parachute from the plane.  
 How many soldiers are left on the plane ?



- (b) The dentist charged Mr. Molar £245 for a crown and £76 for a filling.  
 How much was Mr. Molar's total bill ?



- (c) Janice earned £1850 per month and Joe earned £790.  
 (i) How much did they earn altogether ?  
 (ii) How much more did Janice earn than Joe ?

5. Miss Savey had £265 in her wallet.  
 She spent £99 on a new jacket and £79 on a pair of shoes.  
 She then took £120 from a cashline machine.  
 How much money does Miss Savey have in her possession now ?



## Exercise 3

Show all your working for this exercise.

1. Copy the following and find the answers :-

- |   |   |   |   |
|---|---|---|---|
| (a) $\begin{array}{r} 468 \\ + 222 \\ \hline \end{array}$ | (b) $\begin{array}{r} 678 \\ + 396 \\ \hline \end{array}$   | (c) $\begin{array}{r} 499 \\ - 368 \\ \hline \end{array}$   | (d) $\begin{array}{r} 777 \\ + 333 \\ \hline \end{array}$   |
| (e) $\begin{array}{r} 904 \\ - 717 \\ \hline \end{array}$ | (f) $\begin{array}{r} 8008 \\ + 1764 \\ \hline \end{array}$ | (g) $\begin{array}{r} 2345 \\ + 7656 \\ \hline \end{array}$ | (h) $\begin{array}{r} 5004 \\ - 4295 \\ \hline \end{array}$ |

(i)  $4870 + 888$       (j)  $5432 + 3577$       (k)  $7941 - 5974$       (l)  $9009 - 178$

2. (a) Last season, the Tigers scored 4375 points and the Panthers scored 2680 points.

- (i) How many points were scored altogether?  
 (ii) How many more points were scored by the Tigers than the Panthers?



(b)



A secretary earned £7660 last year.  
 This year she received a pay increase of £1360.  
 What is her salary this year?

- (c) Jay has £2450. He gives Paul £360, Beth £660 and Andy £150.  
 Peter gives Jay £75.

How much money does Jay have now?



### Exercise 4

1. Write down the answers to the following :-

(a)  $45 \times 10$       (b)  $22 \times 10$       (c)  $10 \times 76$       (d)  $10 \times 20$   
 (e)  $123 \times 10$       (f)  $802 \times 10$       (g)  $10 \times 1200$       (h)  $10 \times 1030$

2. Write down the answers to the following :-

(a)  $41 \times 100$       (b)  $99 \times 100$       (c)  $100 \times 231$       (d)  $100 \times 100$   
 (e)  $501 \times 100$       (f)  $100 \times 300$       (g)  $100 \times 2020$       (h)  $5000 \times 100$

3. Write down the answers to these :-

(a)  $230 \times 10$       (b)  $330 \times 100$       (c)  $404 \times 10$       (d)  $100 \times 660$   
 (e)  $10 \times 900$       (f)  $1000 \times 100$       (g)  $1010 \times 10$       (h)  $2000 \times 100$

4. A bottle holds 100 millilitres of medicine.

How many millilitres are there in :-

(a) 4 bottles      (b) 30 bottles?

5. There are 10 millimetres in 1 centimetre.

How many millimetres are there in :-

(a) 5 cm      (b) 40 cm      (c) 101 cm      (d) 1000 cm?



## Exercise 5



1. Write down the answers to the following :-

- (a)  $330 \div 10$       (b)  $560 \div 10$       (c)  $700 \div 10$       (d)  $3000 \div 10$   
 (e)  $8000 \div 10$       (f)  $5500 \div 10$       (g)  $10\ 000 \div 10$       (h)  $140\ 500 \div 10$

2. Write down the answers to the following :-

- (a)  $200 \div 100$       (b)  $1600 \div 100$       (c)  $8000 \div 100$       (d)  $24\ 000 \div 100$   
 (e)  $10\ 000 \div 100$       (f)  $20\ 100 \div 100$       (g)  $300\ 000 \div 100$       (h)  $5\ 000\ 000 \div 100$

3. Write down the answers to these :-

- (a)  $9000 \div 100$       (b)  $2050 \div 10$       (c)  $22\ 000 \div 100$       (d)  $1100 \div 10$   
 (e)  $8700 \div 100$       (f)  $10\ 000 \div 10$       (g)  $1000 \div 100$       (h)  $100 \div 100$

4. There are 10 millimetres in 1 centimetre and 100 centimetres in 1 metre.

How many metres are equivalent to :-

- (a) 500 cm      (b) 80 000 cm      (c) 50 000 mm      (d) 100 000 mm ?

5. A bottle can hold 100 headache pills.

How many similar bottles are needed to hold :-

- (a) 700 pills      (b) 40 000 pills ?



## Exercise 6

1. Copy the following and complete the calculations :-

- |  |  |  |  |
|--|--|--|--|
| (a) $\begin{array}{r} 27 \\ \times 3 \\ \hline \end{array}$  | (b) $\begin{array}{r} 34 \\ \times 4 \\ \hline \end{array}$  | (c) $\begin{array}{r} 71 \\ \times 6 \\ \hline \end{array}$  | (d) $\begin{array}{r} 55 \\ \times 5 \\ \hline \end{array}$  |
| (e) $\begin{array}{r} 132 \\ \times 7 \\ \hline \end{array}$ | (f) $\begin{array}{r} 308 \\ \times 6 \\ \hline \end{array}$ | (g) $\begin{array}{r} 367 \\ \times 4 \\ \hline \end{array}$ | (h) $\begin{array}{r} 238 \\ \times 9 \\ \hline \end{array}$ |

2. Rewrite each of these in the above form and complete the calculations :-

- (a)  $35 \times 6$       (b)  $93 \times 5$       (c)  $8 \times 43$       (d)  $78 \times 7$   
 (e)  $9 \times 406$       (f)  $8 \times 333$       (g)  $9231 \times 9$       (h)  $4 \times 4444$

3. Show all working :- (a) How many minutes are there in eight hours ?

(b) How many hours are in a week ?

(c) Find :- (i)  $3 \times 72 \times 4$       (ii)  $5 \times 621 \times 7$



Exercise 8



- Try to do the following mentally :- (use the 2-step approach)
 

(a) $32 \times 20$	(b) $52 \times 30$	(c) $30 \times 40$	(d) $123 \times 30$
(e) $40 \times 25$	(f) $50 \times 304$	(g) $70 \times 80$	(h) $90 \times 321$
- Calculate each of the following (not necessarily mentally) :-
 

(a) $234 \times 30$ [Find $10 \times 234$ first = 2340 and then find $2340 \times 3$ ]	(d) $453 \times 40$
(b) $137 \times 50$	(e) $876 \times 20$
(c) $705 \times 60$	
- Calculate each of the following :-
 

(a) $167 \times 200$ [Find $167 \times 100$ first = 16 700 and then find $16 700 \times 2$ ]	(e) $420 \times 500$
(b) $152 \times 400$	(f) $879 \times 300$
(c) $405 \times 500$	(g) $987 \times 200$
(d) $517 \times 600$	(h) $222 \times 800$
(i) $510 \times 700$	

Exercise 9

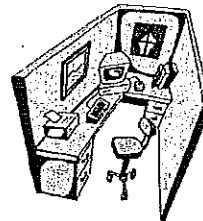


- Round to the nearest 10 :-
 

(a) 58	(b) 43	(c) 85	(d) 128
(e) 362	(f) 489	(g) 3765	(h) 1996
- Round to the nearest 100 :-
 

(a) 471	(b) 849	(c) 1396	(d) 3445
(e) 9819	(f) 6066	(g) 11 870	(h) 9951

- A room has a perimeter of 7465 centimetres.  
Round this figure to the nearest :-  
(a) 10                      (b) 100



- 

Sanjit has £1996 in his bank.  
Round this figure to the nearest :-  
(a) £10                      (b) £100.

- A spaceship orbits a planet and travels 99 909 kilometres.  
Round this figure to the nearest :-  
(a) 10 km                      (b) 100 km.



Exercise 10



1. Round each number to 1 figure accuracy, then give an estimate to :-
- (a)  $39 + 23$       (b)  $47 + 44$       (c)  $197 + 38$       (d)  $123 + 139$   
 (e)  $93 + 190$       (f)  $88 + 194$       (g)  $378 + 241$       (h)  $794 + 251$

2. (a) Jack has 188 euros. Jill has 322 euros.  
 Approximately, how many euros do they have in total?



- (b) Calculate, approximately, the **perimeter** of a square with each side 198 centimetres.



3. Give an approximate answer to each of the following :-
- (a)  $97 - 49$       (b)  $284 - 198$       (c)  $512 - 296$       (d)  $1111 - 790$

4. Round each number to 1 figure accuracy, then give an estimate to :-
- (a)  $29 + 31 + 38$       (b)  $199 + 304 + 299$       (c)  $29 + 793 + 90$       (d)  $819 + 143 + 189$   
 (e)  $12 \times 8$       (f)  $54 \times 8$       (g)  $34 \times 98$       (h)  $222 \times 95$

Exercise 11

You may use a calculator for this exercise.



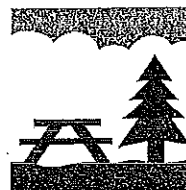
1. Calculate :-
- (a)  $364 + 179$       (b)  $4789 - 1908$       (c)  $6734 + 243$       (d)  $9578 - 833$   
 (e)  $37 \times 24$       (f)  $8234 \div 23$       (g)  $37 \times 46 \div 23$       (h)  $158 \times 288 \div 79$


2. (a) A jet flies 187 kilometres of a one thousand kilometre flight.  
 How far has the jet still to travel?



- (b)  Jack buys a car and pays £2760.  
 He still has £1890 to pay.  
 What is the cost of his car?

- (c) A rectangular park of length 250 metres has a perimeter of 800 metres.  
 What is the width of the park?



- (d)  Sam has £300. She buys three jackets at £45 each and a dress costing £94.  
 How much money does she have left?

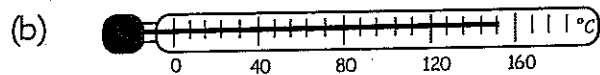


## Revision Exercise



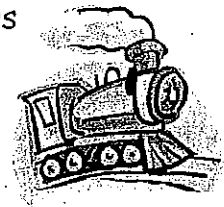
- Write out the number 10759 fully in words.
- Write the following numbers using digits :-  
(a) twenty thousand and ten      (b) eighty one thousand and ninety.
- Rearrange the following numbers in order, starting with the largest :-  
4070    4991    3765    3099    40003    4700

- What is the reading on these thermometers :-



- What is the average (**mean**) of :- (a) 1500 and 1800      (b) 8700 and 9600
- Try doing the following mentally :-  
(a)  $78 + 86$       (b)  $2500 - 1950$       (c)  $3650 + 9350$       (d)  $10000 - 2950$   
(e)  $42 \times 10$       (f)  $5400 \div 10$       (g)  $100 \times 330$       (h)  $36000 \div 100$   
(i) A train has 76 passengers. At the station fifty nine passengers get off and sixteen passengers get on the train.

How many passengers are now on the train ?



- Show all working :-

- (a)  $3474 + 188$       (b)  $8765 - 5678$       (c)  $3456 + 2199$       (d)  $10000 - 5678$   
(e)  $44 \times 5$       (f)  $622 \times 8$       (g)  $324 \div 4$       (h)  $19188 \div 9$

- Show all working :-

- (a) Jo buys a television for £469 and a DVD player for £176.  
What is Jo's total bill ?  
(b) Penny has £8078 in her bank.  
She takes out £1290 for a car deposit.  
How much is now in Penny's bank account ?





- Round 4996 to the nearest:- (a) 10      (b) 100
- Find mentally an **approximate** answer to :- (a)  $496 + 708$       (b)  $199 \times 11$
- Find mentally :- (a)  $40 \times 20$       (b)  $600 \times 30$       (c)  $4000 \div 20$

**Chapter 3**

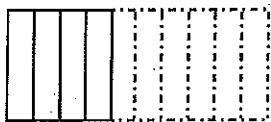

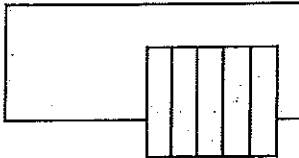
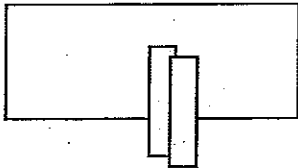


**Decimal Numbers**



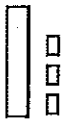
**Exercise 1**

1. In this question,  stands for 1 tray of tablet (1 whole number).  
 stands for 1 bar (0.1).


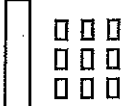
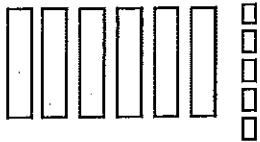
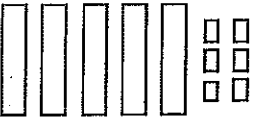

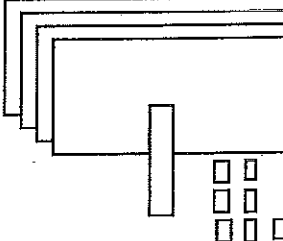
What decimal numbers do the following diagrams represent ?

- (a)  (b)  (c) 
- (d)  (e)  (f) 

2. Draw neat pictures, in the same style as shown in question 1, to represent :-  
 (a) 0.3                      (b) 1.2                      (c) 3.1                      (d) 2.9

**Remember :** This  stands for 0.13 or  $\frac{13}{100}$ .

3. What decimal numbers are represented in the diagrams below ?

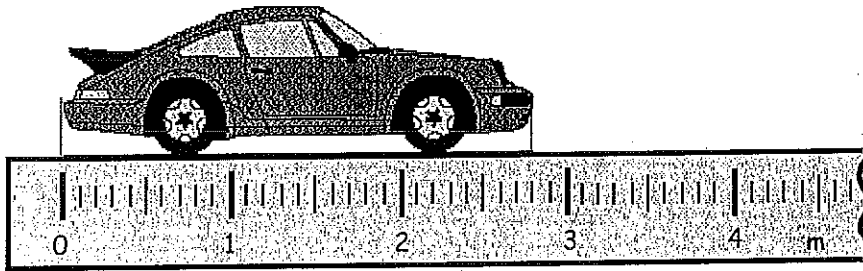
- (a)  0.2....
- (b)  0. ....
- (c)  0. ....
- (d) 
- (e) 
- (f) 

4. Draw neat pictures, in the same style as shown in question 3, to represent :-  
 (a) 0.13                      (b) 1.26                      (c) 3.81                      (d) 2.03
5. What does the "6" stand for in these numbers :-  
 (a) 36.89                      (b) 61.32                      (c) 78.46                      (d) 1.69?
6. Arrange the following numbers in order, smallest first :-  
 0.87, 1.91, 0.78, 1.09, 1.11, 0.09.
7. What number is :-  
 (a)  $\frac{1}{10}$  up from 0.7                      (b)  $\frac{7}{10}$  down from 1.9                      (c)  $\frac{3}{10}$  up from 5.2  
 (d)  $\frac{1}{100}$  up from 0.23                      (e)  $\frac{5}{100}$  down from 6.27                      (f)  $\frac{15}{100}$  up from 2.47  
 (g) half way between :-                      (i) 0.2 and 0.6                      (ii) 0.2 and 0.3?
8. Craig is 1.5 metres tall and Paul is 1.8 metres tall.  
 What is their average height ?

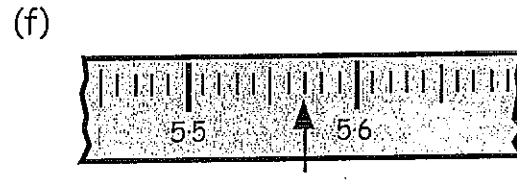
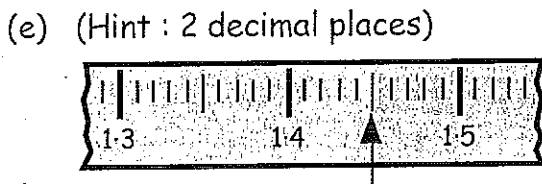
Exercise 2



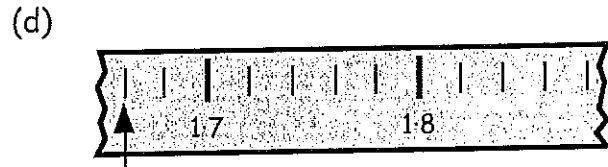
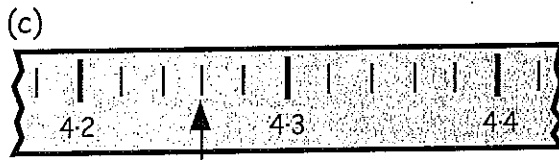
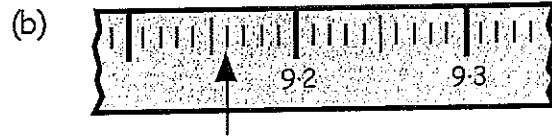
1. Write down the length of this car in metres :-



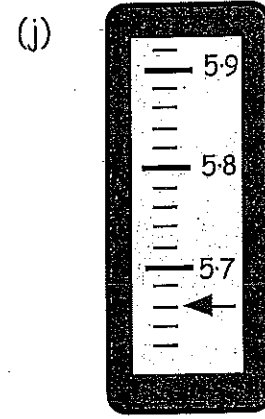
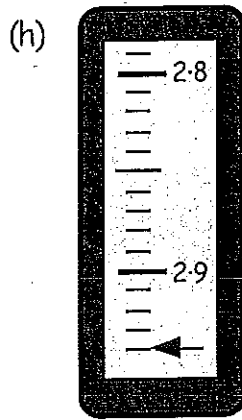
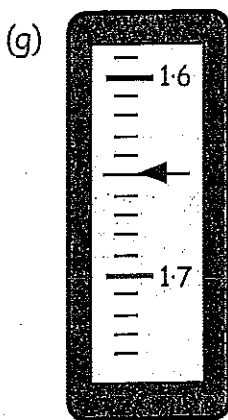
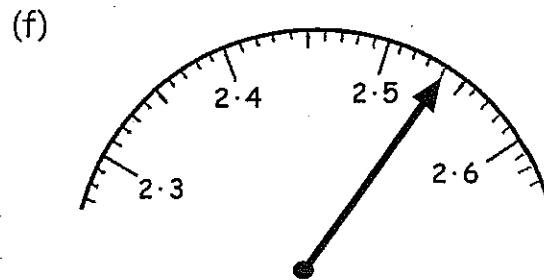
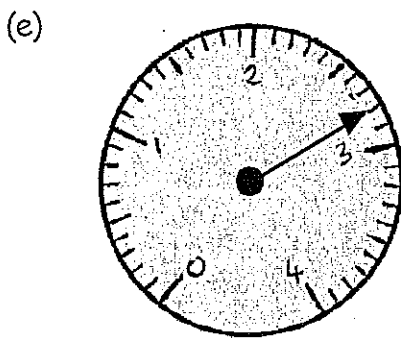
2. To what decimal numbers are the arrows pointing ?



3. Look at these diagrams. What number is the arrow pointing to in each case ?



NOT (4.23)



4. What number lies half way between :-

(a) 0.2 and 0.3

(b) 1.64 and 1.78

(c) 4.68 and 5

**Exercise 3**

1. When each decimal is rounded to the nearest whole number, which of the two numbers in the brackets is the correct answer :-

(a) 8.1 (8 or 9) ?

(b) 12.8 (12 or 13) ?

(c) 20.6 (20 or 21) ?

(d) 0.4 (0 or 1) ?

(e) 1.49 (1 or 2) ?

(f) 22.61 (22 or 23) ?

(g) 8.51 (8 or 9) ?

(h) 9.09 (9 or 10) ?





2. Copy and complete these statements :-

- (a) 1.8 lies between 1 and 2 . It is closer to ?  
 (b) 7.9 lies between 7 and ? It is closer to ?  
 (c) 18.52 lies between ? and ? It is closer to ?

3. Round these to the nearest whole number :-

- (a) £8.30                      (b) £7.90                      (c) £2.49                      (d) £9.61  
 (e) 7.4 cm                      (f) 8.6 cm                      (g) 9.8 cm                      (h) 2.1 cm  
 (i) 6.5 kg                      (j) 8.71 kg                      (k) 12.38 kg                      (l) 19.51 kg

4. Round these numbers to the nearest whole number :-

- (a) 5.18742 →                      (b) 1.62341 →                      (c) 10.29879 →  
 (d) 99.39965 →                      (e) 0.59834 →                      (f) 99.511112 →

5. Use your calculator and write down the answers, correct to the nearest whole number :-

- (a)  $30 \div 9$                       (b)  $271 \div 5$                       (c)  $3645 \div 42$   
 (d) Eight people won £9875 on the lottery. How much did they each get ?  
 (e) A piece of wood, 333 cm long, is sawn into 6 table legs. How long is each leg ?



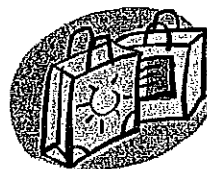
#### Exercise 4

1. Try to do all of the following questions mentally. Find :-

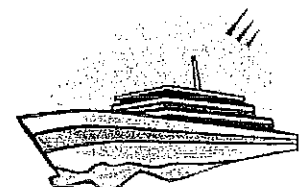
- (a)  $2.8 + 4.1$                       (b)  $6.4 + 2.9$                       (c)  $0.65 + 1.14$                       (d)  $6.76 + 1.6$   
 (e)  $8.7 - 5.3$                       (f)  $5.6 - 3.9$                       (g)  $2.85 - 1.9$                       (h)  $1.57 - 0.99$

- (i) Two shopping bags weigh 7.7 kilograms and 8.9 kilograms.

What is the combined weight ?

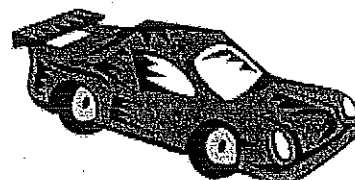


- (j) A ship sails 34.8 kilometres of a 100 kilometre voyage.  
 How far has the ship still to travel ?



- (k) A rally race consists of 3 stages  
 Stage 1 : 32.4 kilometres  
 Stage 2 : 28.7 kilometres  
 Stage 3 : 33.9 kilometres

What is the total race distance ?



2. Copy the following and find :-

$$\begin{array}{r} (a) \quad 2.5 \\ + 1.4 \\ \hline \end{array}$$

$$\begin{array}{r} (b) \quad 13.4 \\ + 2.7 \\ \hline \end{array}$$

$$\begin{array}{r} (c) \quad 22.84 \\ + 33.82 \\ \hline \end{array}$$

$$\begin{array}{r} (d) \quad 125.23 \\ + 54.78 \\ \hline \end{array}$$

$$\begin{array}{r} (e) \quad 4.4 \\ - 1.2 \\ \hline \end{array}$$

$$\begin{array}{r} (f) \quad 43.8 \\ - 32.9 \\ \hline \end{array}$$

$$\begin{array}{r} (g) \quad 68.46 \\ - 29.77 \\ \hline \end{array}$$

$$\begin{array}{r} (h) \quad 77.8 \\ - 58.93 \\ \hline \end{array}$$

(i)  $3.8 + 4.7$

(j)  $18.78 - 12.89$

(k)  $5.6 + 11.76$

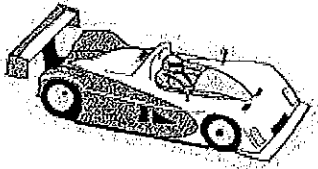
(l)  $23.2 - 17.83$

3. (a) An empty bucket weighs 3.7 kilograms.  
2.9 kilograms of water is poured into the bucket.

What is the final weight ?



(b)

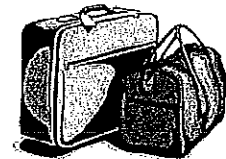


Hill raced round the track in 53.68 seconds.  
Smith raced round in 52.94 seconds.

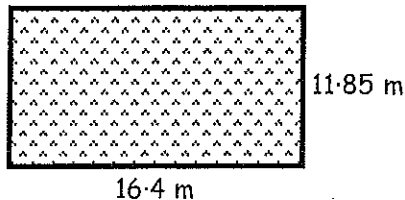
How much faster was Smith than Hill ?

- (c) Jack has two cases with a total weight of 42.6 kilograms.  
The heavier case weighs 34.8 kilograms.

What is the weight of the other case ?



(d)



A rectangular garden has a length of 16.4 metres and width 11.85 metres.

Calculate the perimeter of the garden.

4. The table shows the charges for hiring holiday equipment.

The charges are per day.

- (a) Find the cost to hire :-  
(i) a bike and a scooter for a day.  
(ii) two bikes for a day.  
(iii) a jet ski and a canoe for a day.  
(iv) a scooter for 2 days.

**Hire Charges per day**

Bike	£4.50
Scooter	£12.75
Canoe	£8.20
Jet Ski	£25.80

- (b) James wants to hire a jet ski for 2 days and a bike for 3 days.

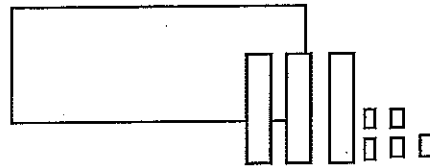
How much money will this cost altogether ?



Revision Exercise



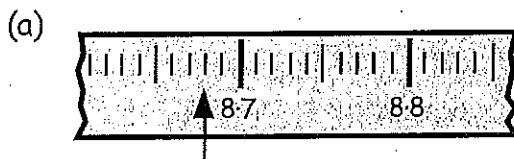
1. What number is represented by the diagram ?



2. In the number 32.78, what does the :-

- (a) 3 stand for      (b) 2 stand for      (c) 8 stand for      (d) 7 stand for ?

3. What decimal numbers are the arrows pointing to ?



4. Round to the nearest whole number :-

- (a) 3.8                      (b) 2.4                      (c) 59.2                      (d) 99.6.

5. Do the following mentally :-

- (a)  $5.2 + 3.6$               (b)  $2.7 + 3.15$               (c)  $15.6 - 3.4$               (d)  $0.76 - 0.09$ .

6. Show all working and find :-

- (a)  $4.72 + 3.83$               (b)  $18.7 + 2.78$               (c)  $5.64 - 3.8$               (d)  $15.8 - 11.11$ .

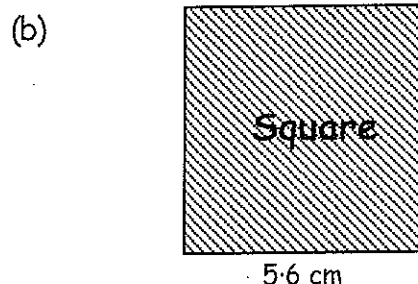
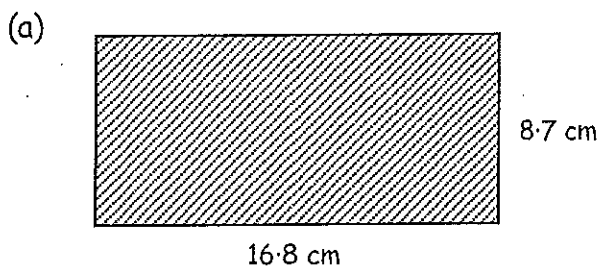
7. Belinda pays £25.75 for petrol and £5.99 for a car wash. How much change will she get from two £20 notes ?



8. James buys two CD's at £8.95 each and three CD's at £4.50 each.

- (a) How much will this cost him in total ?  
 (b) How much change will he get from a £50 note ?

9. Calculate the perimeter of each of the following shapes :-



# Chapter 6

# Decimals 2

## Exercise 1



- Write down the answers to the following :-
 

(a) $4.9 \times 10$	(b) $7.2 \times 10$	(c) $3.18 \times 10$	(d) $10 \times 6.54$
(e) $10 \times 14.47$	(f) $0.24 \times 10$	(g) $10 \times 1.009$	(h) $0.0567 \times 10$
(i) $4.87 \times 100$	(j) $3.47 \times 100$	(k) $100 \times 5.06$	(l) $100 \times 7.9$
(m) $3.57 \times 100$	(n) $100 \times 1.67$	(o) $100 \times 0.0584$	(p) $0.0041 \times 100$
- How many centimetres are there in 4.5 metres ?
- How many millimetres are there in 2.36 centimetres ?
- The cost of a ticket for the circus is £2.75. If there were 100 people at the circus, how much was raised from ticket sales ?
- Ten factory workers each won £200.50 at the bingo. What was the total of their winnings ?



## Exercise 2



- Write down the answers to the following :-
 

(a) $17.5 \div 10$	(b) $42.9 \div 10$	(c) $547.5 \div 10$	(d) $57.82 \div 10$
(e) $65.07 \div 10$	(f) $9 \div 10$	(g) $48.01 \div 10$	(h) $0.068 \div 10$
(i) $589.2 \div 100$	(j) $482.47 \div 100$	(k) $12.6 \div 100$	(l) $57.08 \div 100$
(m) $310 \div 100$	(n) $7 \div 100$	(o) $1.3 \div 100$	(p) $0.7 \div 100$
- How many metres are equal to 520 centimetres ?
- How many centimetres are equal to 9.5 millimetres ?
- The cost of box of blank CD's is £12.30. If there are 10 CD's in the packet, calculate what one CD would have cost.
- When 100 drawing pins are weighed, their total weight is 59.3 grams. What is the weight of 1 drawing pin ?
- The ten factory workers are back at the bingo. This time, they share a £503 jackpot. How much does each person get ?





Exercise 3



1. Copy and complete each calculation :-

(a) 
$$\begin{array}{r} 3.7 \\ \times 2 \\ \hline \end{array}$$

(b) 
$$\begin{array}{r} 6.7 \\ \times 3 \\ \hline \end{array}$$

(c) 
$$\begin{array}{r} 13.8 \\ \times 4 \\ \hline \end{array}$$

(d) 
$$\begin{array}{r} 82.7 \\ \times 5 \\ \hline \end{array}$$

(e) 
$$\begin{array}{r} 42.8 \\ \times 6 \\ \hline \end{array}$$

(f) 
$$\begin{array}{r} 41.9 \\ \times 7 \\ \hline \end{array}$$

(g) 
$$\begin{array}{r} 41.7 \\ \times 8 \\ \hline \end{array}$$

(h) 
$$\begin{array}{r} 47.6 \\ \times 9 \\ \hline \end{array}$$

(i) 
$$\begin{array}{r} 3.48 \\ \times 7 \\ \hline \end{array}$$

(j) 
$$\begin{array}{r} 8.53 \\ \times 6 \\ \hline \end{array}$$

(k) 
$$\begin{array}{r} 48.7 \\ \times 4 \\ \hline \end{array}$$

(l) 
$$\begin{array}{r} 3.98 \\ \times 8 \\ \hline \end{array}$$

(m) 
$$\begin{array}{r} 5.39 \\ \times 3 \\ \hline \end{array}$$

(n) 
$$\begin{array}{r} 6.48 \\ \times 5 \\ \hline \end{array}$$

(o) 
$$\begin{array}{r} 54.7 \\ \times 7 \\ \hline \end{array}$$

(p) 
$$\begin{array}{r} 9.48 \\ \times 9 \\ \hline \end{array}$$

2. Re-write each of these in the form shown in Q1, then do the multiplication :-

(a)  $3 \times 9.8$

(b)  $4 \times 7.9$

(c)  $5 \times 3.75$

(d)  $6 \times 4.78$

(e)  $7 \times 6.93$

(f)  $8 \times 4.76$

(g)  $9 \times 6.79$

(h)  $3.159 \times 7$



3. Omar works in a fruit shop on a Saturday.

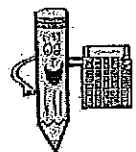
If he works 9 hours at £4.95 per hour how much does he get paid ?

4. It says on the carton that the moss killer will cover 35.9 m<sup>2</sup> of pathway.

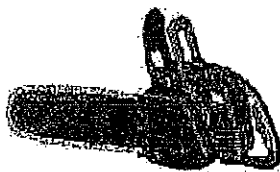


What area of pathway can be treated with 6 cartons ?

5. What is the cost of 8 identical scientific calculators if one costs £4.85 ?



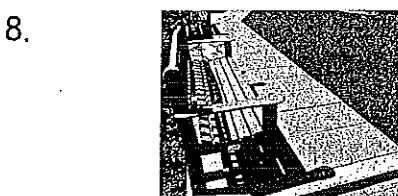
6. Mr Lavety hires a chain saw at £7.48 per hour.



If he keeps it for 5 hours, how much will it cost him ?

7. Last autumn, 2.98 centimetres of rain fell every day for a week.

What total depth of rain fell during this period ?



8. A concrete paving slab is 62.5 cm in length.

What length of pathway will 4 slabs cover ?

## Exercise 4



1. Copy and complete each calculation :-

(a)  $2 \overline{) 6.8}$

(b)  $3 \overline{) 3.9}$

(c)  $4 \overline{) 7.2}$

(d)  $5 \overline{) 8.5}$

(e)  $6 \overline{) 17.4}$

(f)  $7 \overline{) 43.4}$

(g)  $8 \overline{) 52.0}$

(h)  $9 \overline{) 38.7}$

(i)  $2 \overline{) 9.18}$

(j)  $3 \overline{) 8.28}$

(k)  $4 \overline{) 6.76}$

(l)  $5 \overline{) 7.95}$

(m)  $6 \overline{) 1.68}$

(n)  $7 \overline{) 8.96}$

(o)  $8 \overline{) 9.92}$

(p)  $9 \overline{) 9.72}$

2. Re-write each of these in the form shown in Q1; then carry out the division :-

(a)  $7.8 \div 2$

(b)  $8.7 \div 3$

(c)  $6.8 \div 4$

(d)  $48.5 \div 5$

(e)  $2.58 \div 6$

(f)  $9.66 \div 7$

(g)  $9.92 \div 8$

(h)  $9.54 \div 9$

3.  8 packets of bird seed weigh 2.32 kilograms.


What is the weight of 1 packet ?

4. Six children went to the theatre.  
The tickets cost £11.76 in total.  
What was the cost of 1 ticket ?



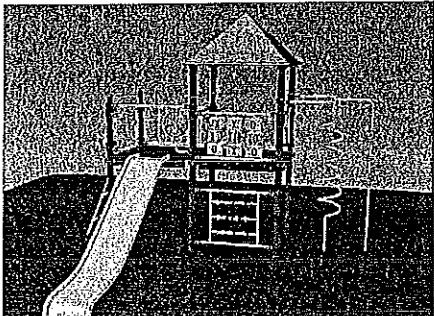
5. Donald paid £9.45 for 7 ice-creams. What was the cost of one ?



6.  9 children decided to split the cost of a pizza.  
If the pizza cost £3.33, how much did each have to pay ?

7. Albert is paid £24.75 for 5 hours of  
collecting trolleys at his local supermarket.  
How much does he earn per hour ?



8.  To raise money for a new play-chute, the nursery school held a sponsored "silence".  
All the youngsters had to stay silent for one hour.  
Unfortunately, some of the children started to talk two thirds of the way through.  
For how many minutes had they managed to stay silent ?

Exercise 5



1. Simon buys a sweatshirt for £39.95 and a pair of shorts at £15.99.  
What is the total cost ?



2. Sarah bought two perfumed candles. One burned for 45.6 minutes.  
The more expensive one lasted 51.3 minutes.



For how much longer did the more expensive one burn ?

3.



Joe paid £44.94 for hiring a cement mixer.  
He picked it up from the shop at 10 am and  
returned it at 4 pm the same day.

Calculate the cost of hiring a cement  
mixer for one hour.

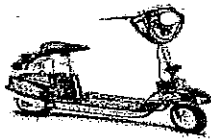
4.

Stanley also hired a cement mixer. He got his from a different shop.  
He had to pay a £10 deposit plus the hire fee of £3.85 per hour.

If Stanley had the mixer for 9 hours, how much did it cost him in total ?



5.



Scott fills his scooter with petrol.  
He puts in 7 litres at a cost of £0.98 per litre.

How much change does he get from a £10 note ?

6.

A group of 12 children pay a total of £34.20  
to have a day out at a leisure centre.

What is the cost of one ticket ?



7.

Find the total cost (including parking)  
for each of the following groups to visit  
Mr R's Theme Park :-

- (a) 30 adults in a coach.
- (b) 12 children in a minibus.
- (c) 2 adults and 4 children in a car.

Mr R's Theme Park		
<b>Entrance</b>		
	Adult	Child
	£1.65	90p
<b>Parking</b>		
Coach	Car	Minibus
£3.25	£1.40	£2.15

8.

The times of the five fastest runners at an athletics meeting were :-

29.6 seconds    31.2 seconds    32.3 seconds    32.6 seconds    33.8 seconds.

Calculate the average time taken by these five runners.



## Revision Exercise



Unless stated

1. Set down and work out :-

- (a)  $4.57 \times 8$       (b)  $3.84 \times 9$       (c)  $16.94 \div 7$       (d)  $13.14 \div 6$

2. Write down the answers to the following :-

- (a)  $9.1 \times 10$       (b)  $54.6 \times 10$       (c)  $8.45 \times 100$       (d)  $7.1 \times 100$   
 (e)  $65.2 \div 10$       (f)  $7.3 \div 10$       (g)  $439.8 \div 100$       (h)  $52 \div 100$

3. Set these down and work them out :-

- (a)  $6 \times 4.7$       (b)  $7 \times 8.4$       (c)  $8 \times 5.9$       (d)  $9 \times 6.85$   
 (e)  $7.68 \div 6$       (f)  $6.23 \div 7$       (g)  $12.72 \div 8$       (h)  $9.81 \div 9$

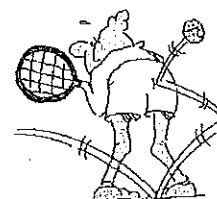
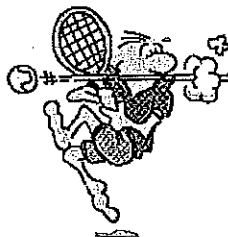
4. What is one seventh of £11.06 ?

5. A group of 8 children and 5 adults are going to play tennis.

The cost is £2.78 per adult and is half-price for each child.

Work out the cost for :-

- (a) the adults.  
 (b) the children.  
 (c) the whole group.



6. Joanne and six of her friends bought an ice-cream each.

They each also bought chocolate sauce as a topping for their ice-creams.

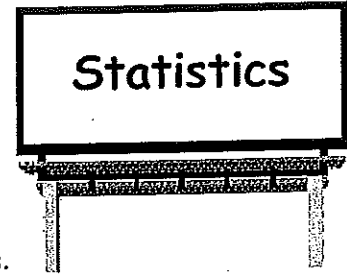
The total bill came to £8.75.

If the cost of an ice-cream without a topping was £1.05, calculate :-

- (a) the cost of the ice-creams for everyone.  
 (b) the total cost of the chocolate sauce topping.  
 (c) the cost of one portion of chocolate sauce.



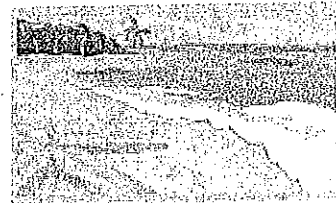
**Chapter 5**



**Exercise 1**

1. Pupils were asked to name their favourite holiday destination.

- Spain Italy America France
- U.K Spain Spain Italy
- America America Spain America
- U.K Spain America America



- (a) Copy and complete the frequency table.
- (b) How many pupils chose Italy ?
- (c) What was the most popular holiday ?
- (d) How many more pupils chose Spain than France ?
- (e) How many pupils were asked to name their favourite holiday destination ?

Sport	Tally	Frequency
Spain		
Italy		
America		
France		
U.K.		

COPY

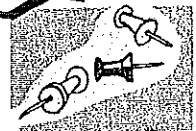
2. Twenty four boxes of pins are opened and the number of pins in each box is counted.

64	61	61	59	60	62	62	64
61	62	64	61	60	61	61	61
59	62	60	61	62	58	60	61

The results are shown in the table.

- (a) Copy and complete the frequency table.
- (b) How many boxes contain 60 pins ?
- (c) How many boxes contain more than 61 pins ?

Pins	Tally	Frequency
58		
59		

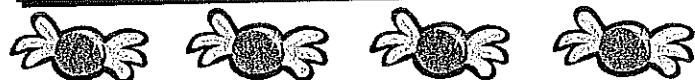


3. Twenty packets of sweets are opened and the number of sweets in each packet is counted.

8	12	11	11	9	9	12
12	12	10	10	9	7	13
11	10	9	9	9	9	8
7	8	8	9	10	13	12
11	13	12	10	10	10	9

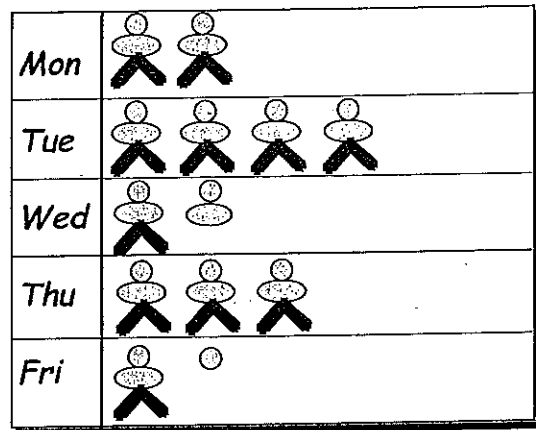
The results are shown in the table.

- (a) Make a frequency table to show this information.
- (b) How many packets contain less than 9 sweets ?



4. The pictograph shows the number of pupils who bought a bottle of water at lunchtime.  
(Remember to look at the key first).

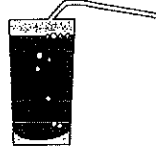
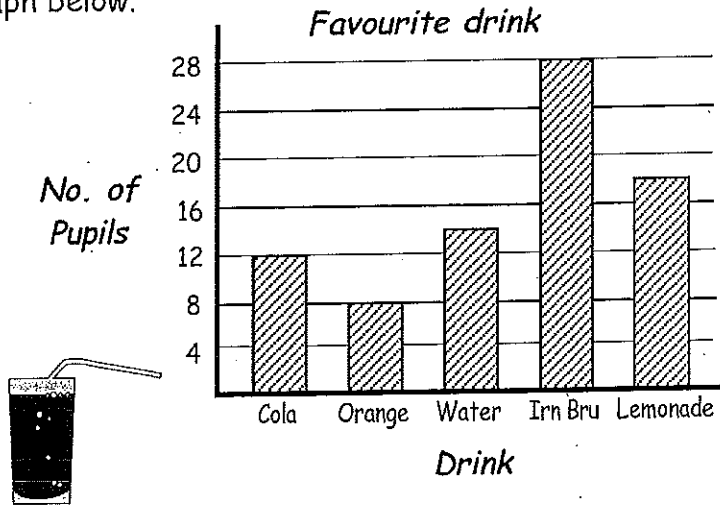
Key:  stands for 3 pupils.



- (a) How many pupils bought water on :-
  - (i) Monday (the answer is not 2)
  - (ii) Tuesday      (iii) Wednesday
  - (iv) Thursday    (v) Friday ?
- (b) How many bottles were bought altogether ?
- (c) How many **more** pupils bought water on Tuesday than on Friday ?

5. 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) Irr Bru
  - (v) Lemonade ?
- (b) List the drinks in order of **most to least** popular.
- (c) How many children were asked in the survey ?



6. 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.

7. 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
U	I	A	E	A	E	I	O	U	A	E	E	E	E
E	E	U	I	A	E	A	E	I	O	U	A	E	E
E	E	E	E	E	E	U	I	A	A	O	E	O	E

Exercise 2

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

(a) How tall was the plant after :-

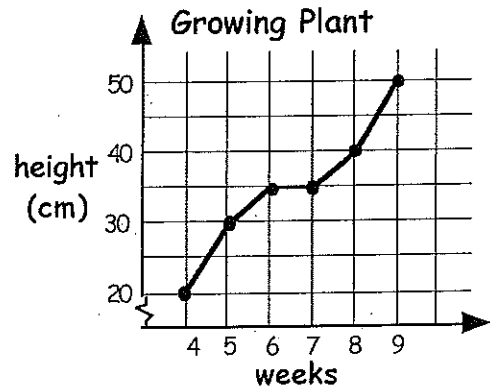
- (i) 4 weeks      (ii) 5 weeks
- (iii) 9 weeks    (iv) 7 weeks ?

(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 eight and a half weeks.



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

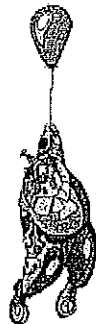
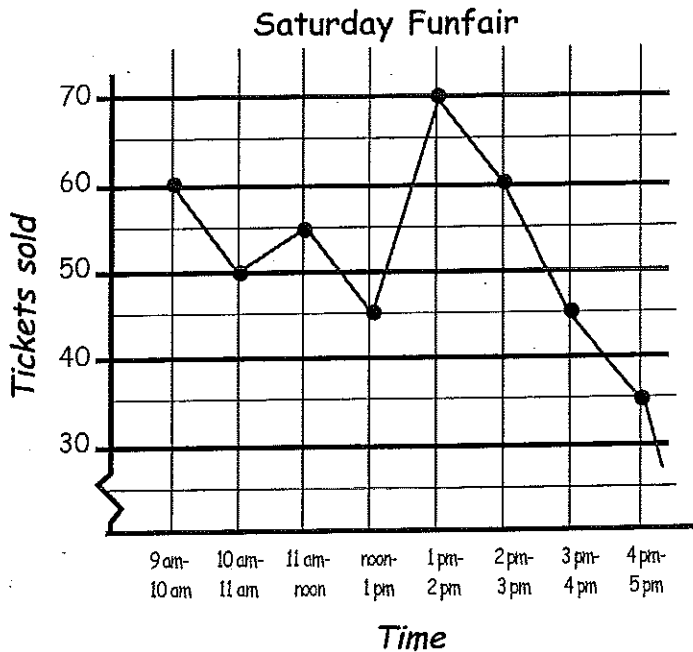
(a) How many tickets were sold :-

- (i) from 9 am - 10 am
- (ii) from 10 am - 11 am
- (iii) from 11 am - 12 noon
- (iv) from 4 pm - 5 pm ?

(b) What was the main peak time (most tickets sold) ?

(c) Between which two time ranges was the biggest increase in ticket sales ?

(d) Why do you think the ticket sales dropped after two o'clock ?

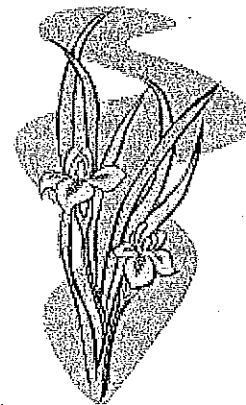


3. Another plant's height was recorded over a period of time.

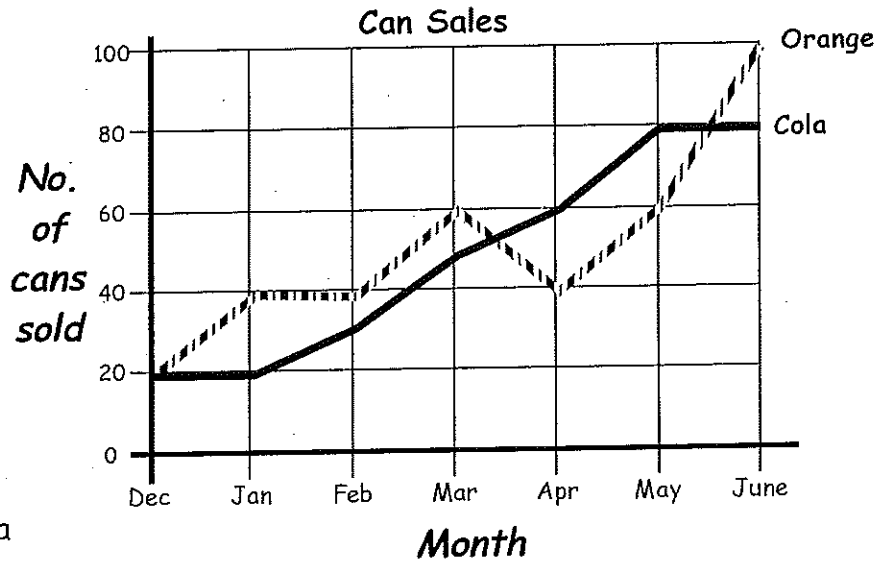
(a) Copy the grid and headings from question 1.

(b) Use the information from the table below 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



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



(a) Which drink had the better sales in :-

- (i) January
- (ii) March
- (iii) April
- (iv) June ?

(b) How many cans of Cola were sold in :-

- (i) January
- (ii) March
- (iii) June ?

(c) How many cans of Orange were sold in :-

- (i) April
- (ii) February
- (iii) March ?

(d) Over the months shown, which flavour had the better (total) sales ?



5. The table shows the average temperatures in a greenhouse each month.

Draw and label a neat line graph to display this data.



Month	Temp °C
March	10
April	15
May	20
June	20
July	25
August	20

Exercise 3

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

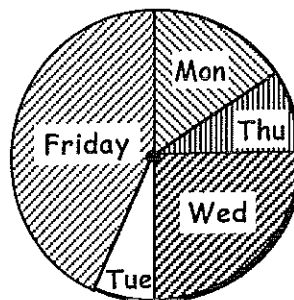
(a) Write down the classes' favourite :-

- (i) schoolday
- (ii) subject.

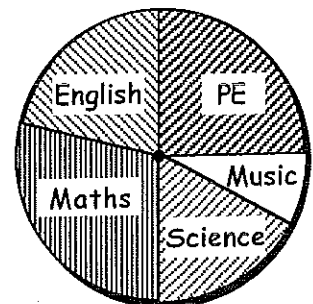
(b) List the favourite days in order, from most popular.

(c) List the favourite subjects in order, from least popular.

Favourite Schoolday

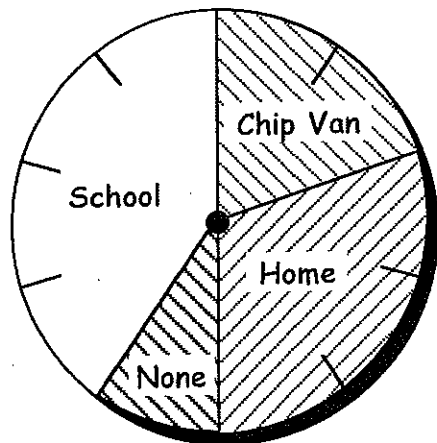


Favourite Subject





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



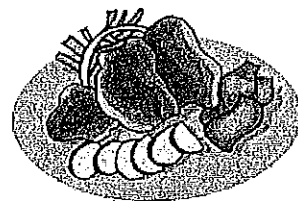
(a) Write down the fraction of the class who chose :-

- (i) Chip Van
- (ii) Home
- (iii) None
- (iv) School.

(b) 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.

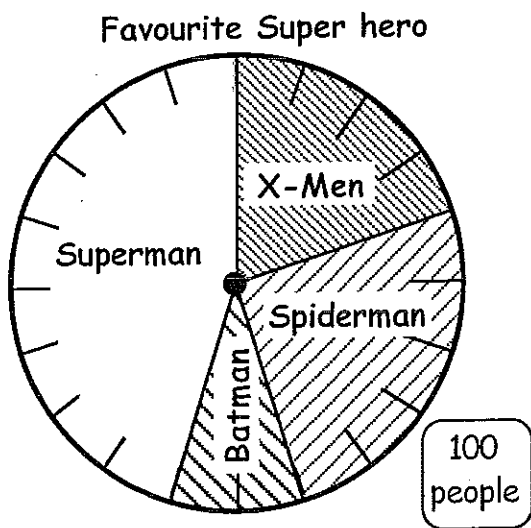


(a) How many pupils does each individual section stand for ?

(b) How many pupils chose :-

- (i) School
- (ii) Chip Van
- (iii) Home
- (iv) None ?

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



(a) What fraction does each part stand for ?

(b) What fraction represents :-

- (i) Superman
- (ii) X-Men
- (iii) Spiderman
- (iv) Batman ?

100 people were questioned in the survey.

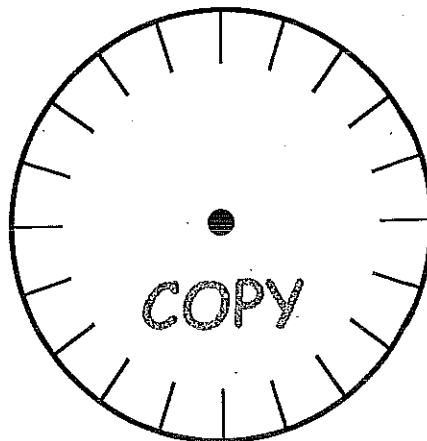
(c) How many people does each small section represent ?

(d) How many people chose :-

- (i) Superman
- (ii) X-Men
- (iii) Spiderman
- (iv) Batman ?

5. 100 people were asked to name their favourite colour.

Black	-	40
Blue	-	25
Red	-	20
Silver	-	5
Orange	-	10



Copy (or trace) the blank pie chart, and complete it showing the above information.

**Exercise 4**

1. The table shows the cost of hiring different sizes of bouncy castles.

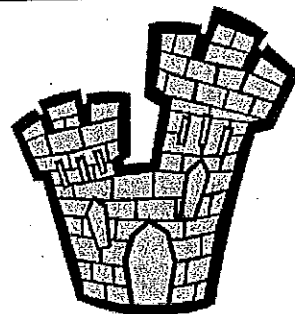
	Fri	Sat	Sun
<i>Small</i>	£12	£18	£24
<i>Large</i>	£20	£25	£35

(a) How much would it cost to hire a :-

- (i) small castle on Friday
- (ii) large castle on Saturday
- (iii) small castle on Sunday ?

(b) You can hire a large castle on Saturday and Sunday for £45.

How much would you save on the table prices.



2. Jill is buying a new duvet.



	Single	Double	Kingsize
<i>Economy</i>	£14	£21	£24
<i>Standard</i>	£16	£25	£34
<i>Deluxe</i>	£20	£30	£40

The table shows the different sizes and standards of duvet.

(a) How much would it cost for a :-

- (i) single economy
- (ii) kingsize standard
- (iii) single deluxe
- (iv) deluxe kingsize ?

(b) Jill paid £25 for her duvet.

Which duvet did Jill buy ?

3. Jeremy is planning a trip to Rome.

The table shows the different airports he can fly from in a given month.

The prices shown include the return flight.

Airport	Apr	May	June	July	Aug
<i>Glasgow</i>	£105	£110	£120	£150	£145
<i>Edinburgh</i>	-----	-----	-----	£170	£160
<i>Newcastle</i>	£110	£110	£115	£130	£130
<i>Manchester</i>	-----	-----	£110	£125	£130
<i>London</i>	£99	£99	£99	£109	£109

(a) How much would it cost Jeremy to fly to Rome from :-

- (i) Glasgow in May
- (ii) Newcastle in June
- (iii) London in July ?

(b) Jeremy decides to take his girlfriend with him to Rome. How much will it cost altogether to fly to Rome from :-

- (i) Manchester in June
- (ii) Glasgow in August ?

(c) What do you think the lines ----- in the table mean ?

4. This holiday table shows the prices for each adult and each child.

How much would it cost for each of the following holidays :-



	One week		Two weeks	
	Adult	Child	Adult	Child
<i>France</i>	£159	£89	£179	£99
<i>Spain</i>	£179	£79	£199	£109
<i>Portugal</i>	£199	£99	£229	£129

- (a) France, 1 adult for 2 weeks ?
- (b) Portugal, 1 adult for 1 week ?
- (c) Spain, 2 adults for 2 weeks ?
- (d) France, 2 adults and 1 child for 2 weeks ?
- (e) Mr. Starkey, his wife and 4 children for two weeks in Portugal ?

5. 154 young people were questioned about how much money they each spent on buying C.D.'s over a period of a year.

The age categories were 13-14, 15-16, 17-18 and 19-20.

The table shows how many of the 154 questioned lay in each category.

Age \ Spend	under £50	between £50-£100	over £100
	13 - 14	1	5
15 - 16	3	6	14
17 - 18	3	7	27
19 - 20	4	12	61



- (a) How many 13 to 14 year olds spent between £50 and £100 ?
- (b) How many 15 to 16 year olds spent over £100 ?
- (c) How many 19 to 20 year olds spent less than £50 ?
- (d) How many 15 to 18 year olds spent between £50 and £100 ?
- (e) How many 13 to 18 year olds spent between £0 and £100 ?
- (f) Billy was one of the 61 who spent over £100 in a year buying C.D.'s.  
In what age range must Billy lie ?

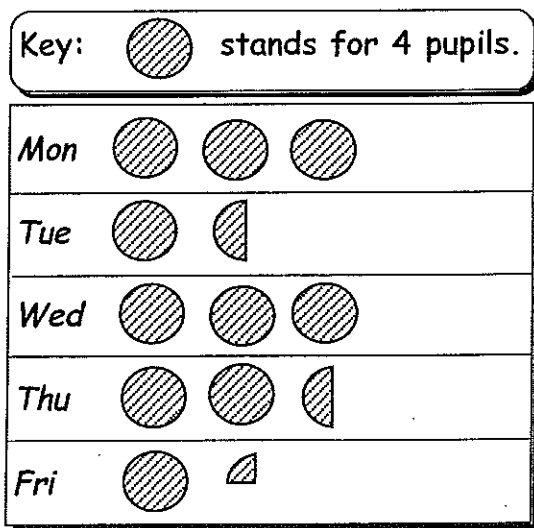
Revision Exercise



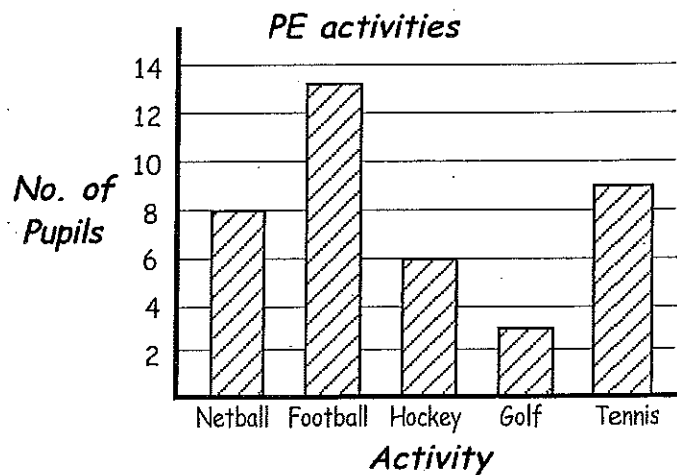
1. Pupils in a class were asked to name their favourite Pop group. The table shows their choices.
  - (a) Show this information in a frequency table. (Name - Tally - Frequency)
  - (b) How many were in the class ?
  - (c) List the groups in order from most popular.

EastLife	Bloo	Burst	U3
Burst	EastLife	Bloo	AtomCat
AtomCat	EastLife	AtomCat	EastLife
Bloo	Bloo	EastLife	EastLife
EastLife	Burst	EastLife	Bloo

2. The pictograph shows the number of pupils who attended a lunchtime club.
  - (a) How many pupils attended on :-
    - (i) Monday (the answer is NOT 3)
    - (ii) Tuesday
    - (iii) Friday ?
  - (b) How many pupils attended the lunchtime club this week ?



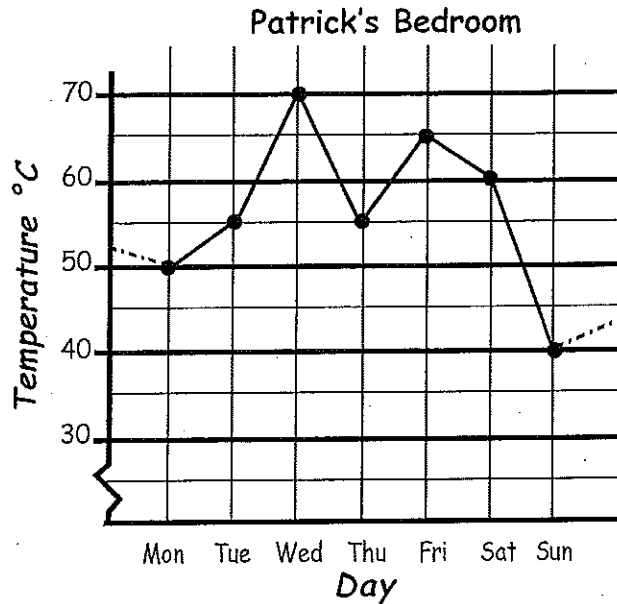
3. The bar graph shows the number of pupils who chose an activity during a games afternoon.
  - (a) How many pupils chose each sport ?
  - (b) How many pupils were there altogether ?



4. Draw and label a neat bar graph using the frequency table from question 1. (Don't forget your headings and title)

5. The line graph shows the average temperature in Patrick's bedroom each day.

- (a) What was the temperature on :-
  - (i) Monday
  - (ii) Saturday
  - (iii) Thursday ?
- (b) On which day did the highest temperature occur ?
- (c) On which days was the average temperature above 60°C ?



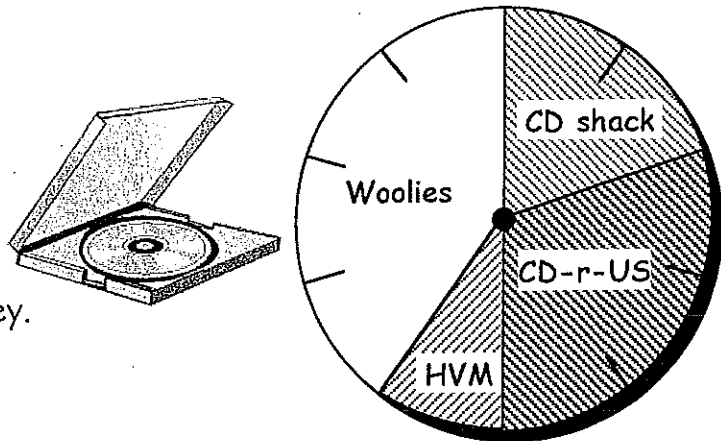
6. The pie chart with 10 sections shows where pupils buy CD's.

What fraction is represented by :-

- (a) HVM
- (b) CD-r-US ?

Eighty pupils took part in the survey.

- (c) How many pupils bought CD's at Woolies ?



7. The table shows the prices at a Ten Pin bowling alley.

- (a) How much would it cost for :-
  - (i) one adult for 2 games on Thursday ?
  - (ii) two children for 1 game on Tuesday ?
  - (iii) two adults for 3 games on Sunday ?



PRICE per GAME

	Mon - Thu		Fri - Sun	
	Adult	Child	Adult	Child
1 game	£2.40	£1.50	£3.00	£2.00
2 games	£3.50	£1.75	£4.00	£2.50
3 games	£4.00	£2.00	£5.00	£3.00

- (b) Mr. Diddy took his wife and three children on a Wednesday for two games. How much did Mr. Diddy pay in total ?