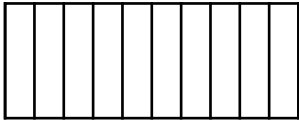



Chapter 3

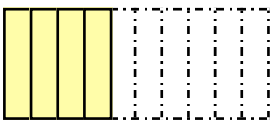
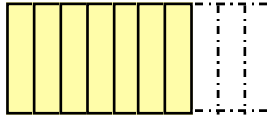
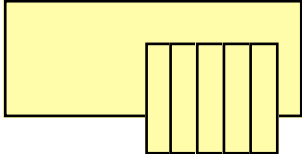
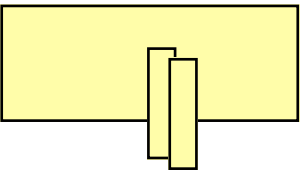
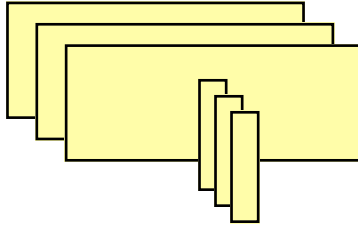
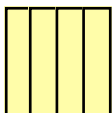
Decimal Numbers



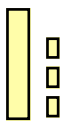
Exercise 1

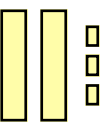
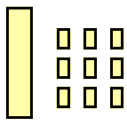
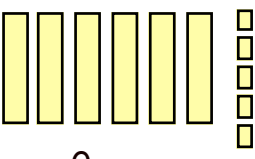
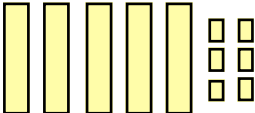
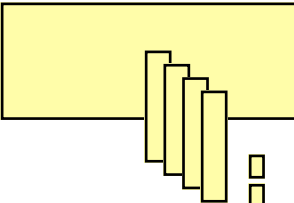
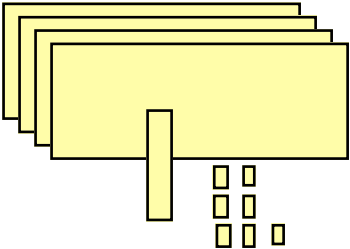
1. In this question,  stands for 1 tray of tablet (1 whole number).
 stands for 1 bar (0.1).

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 $\frac{13}{100}$.

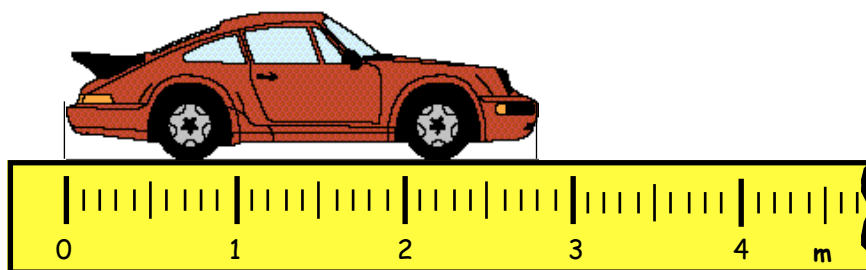
3. What decimal numbers are represented in the diagrams below ?
- (a)  0.2....
- (b)  0.
- (c)  0.
- (d) 
- (e) 
- (f) 

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 ?

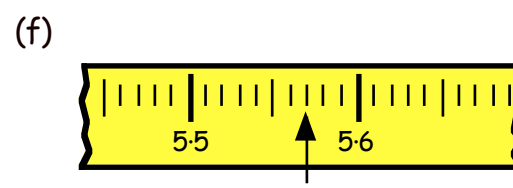
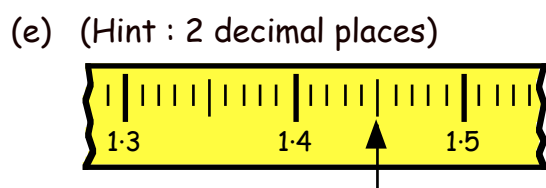
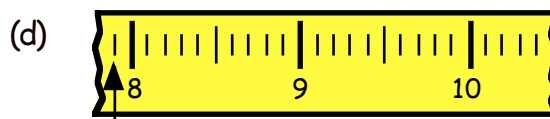
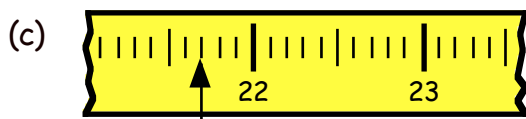
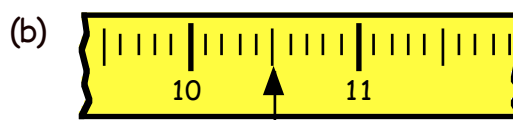
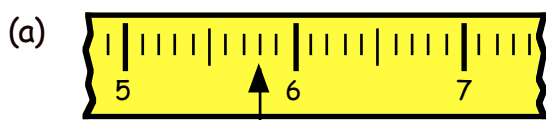
Exercise 2



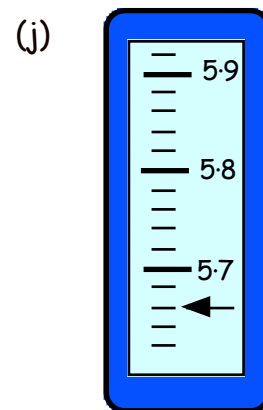
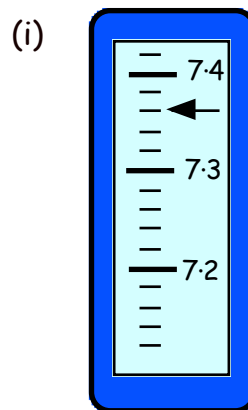
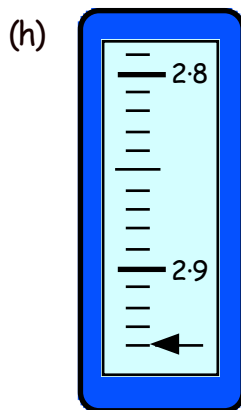
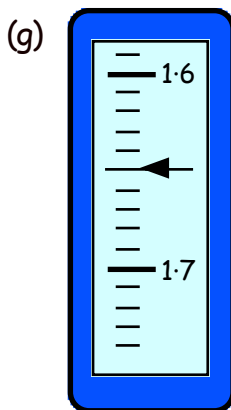
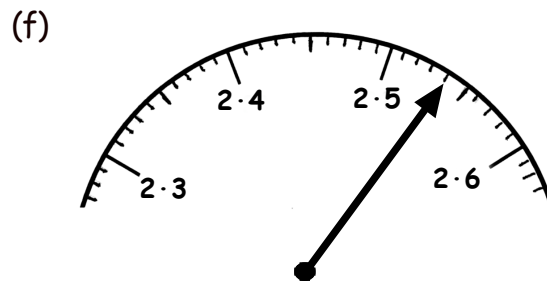
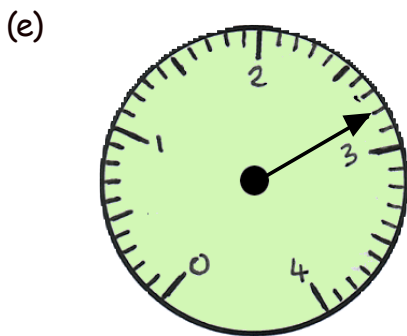
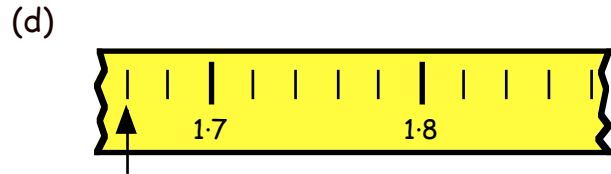
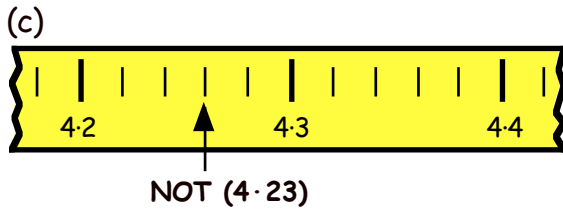
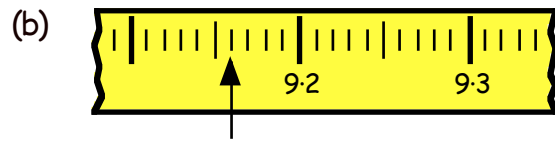
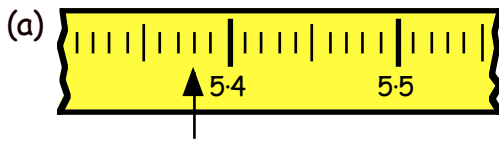
1. Write down the length of this car in metres :-



2. To what decimal numbers are the arrows pointing ?



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



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 :-

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

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

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

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

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

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

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

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

$$(i) \quad 3.8 + 4.7$$

$$(j) \quad 18.78 - 12.89$$

$$(k) \quad 5.6 + 11.76$$

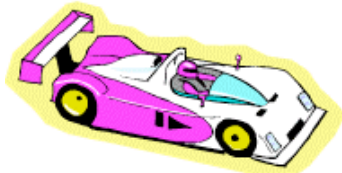
$$(l) \quad 23.2 - 17.83$$

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.

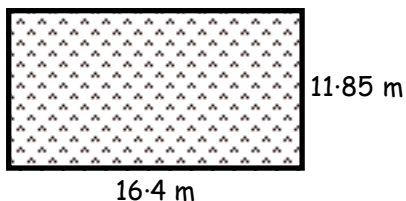
How much faster was Smith than Hill ?

- (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 :-

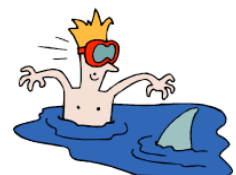
- (i) a bike and a scooter for a day.
(ii) two bikes for a day.
(iii) a jet ski and a canoe for a day.
(iv) a scooter for 2 days.

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.

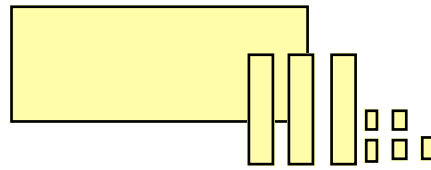
How much money will this cost altogether ?



Revision Exercise



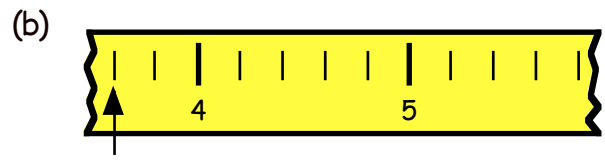
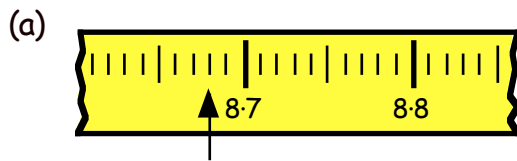
1. What number is represented by the diagram ?



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 :-

