Chapter 3

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) \[ \]
(b) \[ \]
(c) \[ \]

(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 ?
   (a) 5  (b) 10  (c) 22  (d) 8  (e) 1·3  (f) 5·5
3. Look at these diagrams. What number is the arrow pointing to in each case?

(a) [Diagram showing a number line with arrows pointing to 54 and 55, labeled NOT (4.23)]

(b) [Diagram showing a number line with arrows pointing to 92 and 93]

(c) [Diagram showing a number line with arrows pointing to 4.2 and 4.4, labeled NOT (4.23)]

(d) [Diagram showing a number line with arrows pointing to 1.7 and 1.8]

(e) [Diagram showing a clock face with arrows pointing to between 2 and 3]

(f) [Diagram showing a clock face with arrows pointing to between 2.3 and 2.6]

(g) [Diagram showing a ruler with arrows pointing to 1.6 and 1.7]

(h) [Diagram showing a ruler with arrows pointing to 2.8 and 2.9]

(i) [Diagram showing a ruler with arrows pointing to 7.2 and 7.3]

(j) [Diagram showing a ruler with arrows pointing to 5.7 and 5.8]

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 ÷ 9 (b) 271 ÷ 5 (c) 3645 ÷ 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:--

(a) \[ 2.5 \]
(b) \[ 13.4 \]
(c) \[ 22.84 \]
(d) \[ 125.23 \]

\[ + 1.4 \]
\[ + 2.7 \]
\[ + 33.82 \]
\[ + 54.78 \]

(e) \[ 4.4 \]
(f) \[ 43.8 \]
(g) \[ 68.46 \]
(h) \[ 77.8 \]

\[ - 1.2 \]
\[ - 32.9 \]
\[ - 29.77 \]
\[ - 58.93 \]

(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.

(b) James wants to hire a jet ski for 2 days and a bike for 3 days. How much money will this cost altogether?

### Hire Charges per day

- Bike \[ £4.50 \]
- Scooter \[ £12.75 \]
- Canoe \[ £8.20 \]
- Jet Ski \[ £25.80 \]
Revision Exercise

1. What number is represented by the diagram?
   ![Diagram](image)

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 ?
   (a)  
   (b)  

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 :-
   (a)  
   (b)  

   ![Square](image)