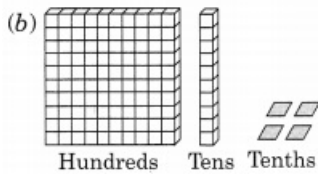
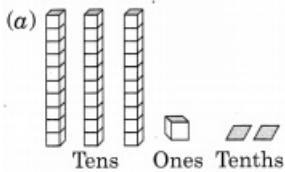


NCERT Solutions for Class 6 Maths Chapter 8 Decimals Ex 8.1

Exercise 8.1

Ex 8.1 Class 6 Maths Question 1.

Write the following as numbers in the given table.



Hundreds (100)	Tens (10)	Ones (1)	Tenths $\left(\frac{1}{10}\right)$

Solution:

From the given data, we have

Hundreds (100)	Tens (10)	Ones (1)	Tenths (1/10)
0	3	1	2
1	1	0	4

Ex 8.1 Class 6 Maths Question 2.

Write the following decimals in the place value table.

- (a) 19.4
 (b) 0.3
 (c) 10.6
 (d) 205

Solution:

Place value table is given as under:

	Hundreds (100)	Tens (10)	Ones (1)	Tenths $\left(\frac{1}{10}\right)$	
(a)	0	1	9	4	(19.4)
(b)	0	0	0	3	(0.3)
(c)	0	1	0	6	(10.6)
(d)	2	0	5	9	(205.9)

Ex 8.1 Class 6 Maths Question 3.

Write each of the following as decimals:

- (a) Seven-tenths
 (b) Two tens and nine-tenths
 (c) Fourteen point six
 (d) One hundred and two ones
 (e) Six hundred point eight

Solution:

(a) Seven-tenths = $7 \times \frac{1}{10} = 0.7$

(b) Two tens and nine-tenths = 2 tens + 0 ones + 9 tenths = $20 + \frac{9}{10} = 20.9$

(c) Fourteen point six = 14.6

(d) One hundred and two ones
 = $1 \times 100 + 2 \times 1 = 100 + 2 = 102$

(e) Six hundred point eight = 600.8

Ex 8.1 Class 6 Maths Question 4.

Write each of the following as decimals:

$$(a) \frac{5}{10}$$

$$(b) 3 + \frac{7}{10}$$

$$(c) 200 + 60 + 5 + \frac{1}{10}$$

$$(d) 70 + \frac{8}{10} \quad (e) \frac{88}{10} \quad (f) \frac{2}{10}$$

$$(g) \frac{3}{2} \quad (h) \frac{2}{5} \quad (i) \frac{12}{5}$$

$$(j) 3\frac{3}{5} \quad (k) 4\frac{1}{2}$$

Solution:

$$(a) \frac{5}{10} = 0.5$$

$$(b) 3 + \frac{7}{10} = 3 + 0.7 = 3.7$$

$$(c) 200 + 60 + 5 + \frac{1}{10} = 265 + \frac{1}{10} = 265.1$$

$$(d) 70 + \frac{8}{10} = 70 + 0.8 = 70.8$$

$$(e) \frac{88}{10} = 8.8$$

$$(f) \frac{2}{10} = 0.2$$

$$(g) \frac{3}{2} = \frac{3 \times 5}{2 \times 5} = \frac{15}{10} = 1.5$$

$$(h) \frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10} = 0.4$$

$$(i) \frac{12}{5} = \frac{12 \times 2}{5 \times 2} = \frac{24}{10} = 2.4$$

$$(j) 3\frac{3}{5} = 3 + \frac{3}{5} = 3 + \frac{3 \times 2}{5 \times 2} = 3 + \frac{6}{10} = 3 + 0.6 = 3.6$$

$$(k) 4\frac{1}{2} = 4 + \frac{1}{2} = 4 + \frac{1 \times 5}{2 \times 5} = 4 + \frac{5}{10} \\ = 4 + 0.5 = 4.5$$

Ex 8.1 Class 6 Maths Question 5.

Write the following decimals as fractions. Reduce the fractions to lowest form.

(a) 0.6

(b) 2.5

(c) 1.0

(d) 3.8

(e) 13.7

(f) 21.2

(g) 6.4

Solution:

$$(a) 0.6 = 0 + \frac{6}{10} = \frac{6}{10}$$

$$\text{Lowest form of } \frac{6}{10} = \frac{6 \div 2}{10 \div 2} = \frac{3}{5}$$

$$(b) 2.5 = 2 + 0.5 = 2 + \frac{5}{10} = \frac{2 \times 10 + 5}{10}$$

$$= \frac{20 + 5}{10} = \frac{25}{10}$$

$$\text{Lowest form of } \frac{25}{10} = \frac{25 \div 5}{10 \div 5} = \frac{5}{2}$$

$$(c) 1.0 = 1 + \frac{0}{10} = 1$$

Lowest form is also 1.

$$(d) 3.8 = 3 + 0.8 = 3 + \frac{8}{10} = \frac{3 \times 10 + 8}{10}$$

$$= \frac{30+8}{10} = \frac{38}{10}$$

$$\text{Lowest form of } \frac{38}{10} = \frac{38 \div 2}{10 \div 2} = \frac{19}{5}$$

$$(e) 13.7 = 13 + 0.7 = 13 + \frac{7}{10} = \frac{13 \times 10 + 7}{10}$$

$$= \frac{130+7}{10} = \frac{137}{10}$$

137 and 10 are co-prime. So lowest form is

$$\text{also} = \frac{137}{10}.$$

$$(f) 21.2 = 21 + 0.2 = 21 + \frac{2}{10} = \frac{21 \times 10 + 2}{10}$$

$$= \frac{210+2}{10} = \frac{212}{10}$$

$$\text{Lowest form of } \frac{212}{10} = \frac{212 \div 2}{10 \div 2} = \frac{106}{5}$$

$$(g) 6.4 = 6 + 0.4 = 6 + \frac{4}{10} = \frac{6 \times 10 + 4}{10}$$

$$= \frac{60+4}{10} = \frac{64}{10}$$

$$\text{Lowest form of } \frac{64}{10} = \frac{64 \div 2}{10 \div 2} = \frac{32}{5}$$

Ex 8.1 Class 6 Maths Question 6.

Express the following as cm using decimals.

- (a) 2 mm
- (b) 30 mm
- (c) 116 mm
- (d) 4 cm 2 mm
- (e) 162 mm
- (f) 83 mm

Solution:

We know that 10 mm = 1 cm.

$$(a) 2 \text{ mm} = \frac{2}{10} \text{ cm} = 0.2 \text{ cm}$$

$$(b) 30 \text{ mm} = \frac{30}{10} \text{ cm} = 3 \text{ cm}$$

$$(c) 116 \text{ mm} = \frac{116}{10} \text{ cm} = \left(11 + \frac{6}{10}\right) \text{ cm} = 11.6 \text{ cm}$$

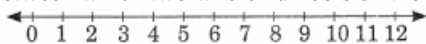
$$(d) 4 \text{ cm } 2 \text{ mm} = 4 \text{ cm} + 2 \text{ mm} \\ = \left(4 + \frac{2}{10}\right) \text{ cm} = 4.2 \text{ cm}$$

$$(e) 162 \text{ mm} = \frac{162}{10} \text{ cm} = \left(16 + \frac{2}{10}\right) \text{ cm} = 16.2 \text{ cm}$$

$$(f) 83 \text{ mm} = \frac{83}{10} \text{ cm} = \left(8 + \frac{3}{10}\right) \text{ cm} = 8.3 \text{ cm}$$

Ex 8.1 Class 6 Maths Question 7.

Between which two whole numbers on the number line are the given numbers lie? Which of these whole numbers is nearer the number?



- (a) 0.8
- (b) 5.1
- (c) 2.6
- (d) 6.4
- (e) 9.1
- (f) 4.9

Solution:

- (a) 0.8 lies between the whole numbers 0 and 1.
- (a) 5.1 lies between the whole numbers 5 and 6.
- (b) 2.6 lies between the whole numbers 2 and 3.
- (c) 6.4 lies between the whole numbers 6 and 7.
- (d) 9.1 lies between the whole numbers 9 and 10.

(e) 4.9 lies between the whole numbers 4 and 5.

Ex 8.1 Class 6 Maths Question 8.

Show the following numbers on the number line.

(a) 0.2

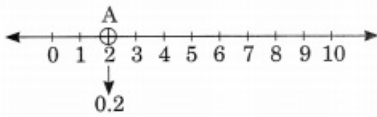
(b) 1.9

(c) 1.1

(d) 2.5

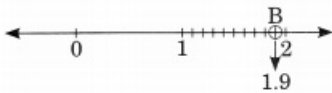
Solution:

(a) 0.2



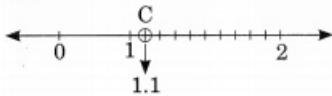
Point A represents 0.2.

(b) 1.9



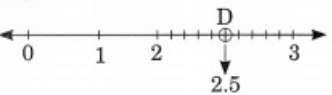
Point B represents 1.9.

(c) 1.1



Point C represents 1.1.

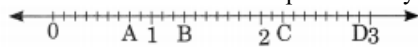
(d) 2.5



Point D represents 2.5.

Ex 8.1 Class 6 Maths Question 9.

Write the decimal number represented by the points A, B, C, D on the given number line.



Solution:

Point A represents 0.8

Point B represents 1.3

Point C represents 2.2

Point D represents 2.9

Ex 8.1 Class 6 Maths Question 10.

(a) The length of Ramesh's notebook is 9 cm 5mm. What will be its length in cm?

(b) The length of a young gram plant is 65 mm. Express its length in cm.

Solution:

(a) Length of the notebook = 9 cm 5 mm

$$= 9 \text{ cm} + \frac{5}{10} \text{ cm} = \left(9 + \frac{5}{10}\right) \text{ cm}$$

$$= (9 + 0.5) \text{ cm} = 9.5 \text{ cm}$$

(b) Length of the young gram plant = 65 mm

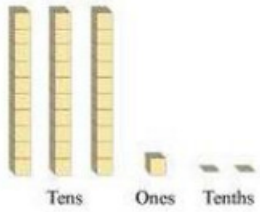
$$= \frac{65}{10} \text{ cm} = \left(6 + \frac{5}{10}\right) \text{ cm} = 6.5 \text{ cm}$$

Exercise 8.1

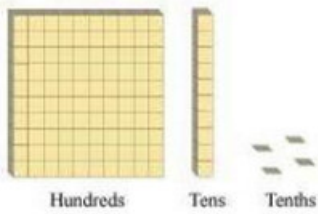
Question 1:

Write the following as numbers in the given table.

(a)



(b)



Hundreds(100)	Tens (10)	Ones (1)	Tenths $\left(\frac{1}{10}\right)$

Answer:

It may be observed that

Row	Hundreds	Tens	Ones	Tenths
a.	0	3	1	2
b.	1	1	0	4

Question 2:

Write the following decimals in the place value table.

(a) 19.4 (b) 0.3

(c) 10.6 (d) 205.9

Answer:

Decimal	Hundreds	Tens	Ones	Tenths
19.4	0	1	9	4
0.3	0	0	0	3
10.6	0	1	0	6
205.9	2	0	5	9

Question 3:

Write each of the following as decimals:

- (a) Seven-tenths (b) Two tens and nine-tenths
(c) Fourteen point six (d) One hundred and two ones
(e) Six hundred point eight

Answer:

(a) Seven-tenths = $\frac{7}{10} = 0.7$

(b) Two tens and nine-tenths = $20 + \frac{9}{10} = 20.9$

(c) Fourteen point six = 14.6

(d) One hundred and two ones = $100 + 2 = 102.0$

(e) Six hundred point eight = 600.8

Write each of the following as decimals:

(a) $\frac{5}{10}$ (b) $3 + \frac{7}{10}$

(c) $200 + 60 + 5 + \frac{1}{10}$ (d) $70 + \frac{8}{10}$

(e) $\frac{88}{10}$ (f) $4\frac{2}{10}$

(g) $\frac{3}{2}$ (h) $\frac{2}{5}$

(i) $\frac{12}{5}$ (j) $3\frac{3}{5}$

(k) $4\frac{1}{2}$

Answer:

(a) $\frac{5}{10} = 0.5$

(b) $3 + \frac{7}{10} = 3 + 0.7 = 3.7$

$$(c) \quad 200 + 60 + 5 + \frac{1}{10} = 265 + 0.1 = 265.1$$

$$(d) \quad 70 + \frac{8}{10} = 70 + 0.8 = 70.8$$

$$(e) \quad \frac{88}{10} = \frac{80}{10} + \frac{8}{10} = 8 + 0.8 = 8.8$$

$$(f) \quad 4\frac{2}{10} = 4 + \frac{2}{10} = 4 + 0.2 = 4.2$$

$$(g) \quad \frac{3}{2} = \frac{2+1}{2} = \frac{2}{2} + \frac{1}{2} = 1 + 0.5 = 1.5$$

$$(h) \quad \frac{2}{5} = 0.4$$

$$(i) \quad \frac{12}{5} = \frac{10+2}{5} = \frac{10}{5} + \frac{2}{5} = 2 + 0.4 = 2.4$$

$$(j) \quad 3\frac{3}{5} = 3 + \frac{3}{5} = 3 + 0.6 = 3.6$$

$$(k) \quad 4\frac{1}{2} = 4 + \frac{1}{2} = 4 + 0.5 = 4.5$$

Question 5:

Write the following decimals as fractions. Reduce the fractions to lowest form.

(a) 0.6 (b) 2.5 (c) 1.0 (d) 3.8

(e) 13.7 (f) 21.2 (g) 6.4

Answer:

$$(a) \quad 0.6 = \frac{6}{10} = \frac{3}{5}$$

$$(b) \quad 2.5 = \frac{25}{10} = \frac{5}{2}$$

$$(c) \quad 1.0 = 1$$

$$(d) \quad 3.8 = \frac{38}{10} = \frac{19}{5}$$

$$(e) \quad 13.7 = \frac{137}{10}$$

$$(f) \quad 21.2 = \frac{212}{10} = \frac{106}{5}$$

$$(g) \quad 6.4 = \frac{64}{10} = \frac{32}{5}$$

Question 6:

Express the following as cm using decimals.

(a) 2 mm (b) 30 mm

(c) 116 mm (d) 4 cm 2 mm

(e) 162 mm (f) 83 mm

Answer:

It is known that 1 cm = 10 mm

$$(a) \quad 2 \text{ mm} = \frac{2}{10} \text{ cm} = 0.2 \text{ cm}$$

$$(b) \quad 30 \text{ mm} = \frac{30}{10} \text{ cm} = 3.0 \text{ cm}$$

$$(c) \quad 116 \text{ mm} = \frac{116}{10} \text{ cm} = 11.6 \text{ cm}$$

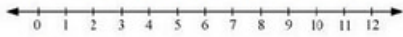
$$(d) \quad 4 \text{ cm } 2 \text{ mm} = \left(4 + \frac{2}{10}\right) \text{ cm} = 4.2 \text{ cm}$$

$$(e) \quad 162 \text{ mm} = \frac{162}{10} \text{ cm} = 16.2 \text{ cm}$$

$$(f) \quad 83 \text{ mm} = \frac{83}{10} \text{ cm} = 8.3 \text{ cm}$$

Question 7:

Between which two whole numbers on the number line are the given numbers lie? Which of these whole numbers is nearer the number?



- (a) 0.8 (b) 5.1
- (c) 2.6 (d) 6.4
- (e) 9.1 (f) 4.9

Answer:

- (a) 0.8 lies between 0 and 1, and is nearer to 1.
- (b) 5.1 lies between 5 and 6, and is nearer to 5.
- (c) 2.6 lies between 2 and 3, and is nearer to 3.
- (d) 6.4 lies between 6 and 7, and is nearer to 6.
- (e) 9.1 lies between 9 and 10, and is nearer to 9.
- (f) 4.9 lies between 4 and 5, and is nearer to 5.

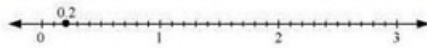
Question 8:

Show the following numbers on the number line.

- (a) 0.2 (b) 1.9
- (c) 1.1 (d) 2.5

Answer:

(a) 0.2 represents a point between 0 and 1 on number line, such that the space between 0 and 1 is divided into 10 equal parts. Hence, each equal part will be equal to one-tenth. Now, 0.2 is the second point between 0 and 1.



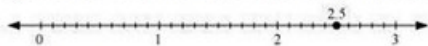
(b) 1.9 represents a point between 1 and 2 on number line, such that the space between 1 and 2 is divided into 10 equal parts. Hence, each equal part will be equal to one-tenth. Now, 1.9 is the ninth point between 1 and 2.



(c) 1.1 represents a point between 1 and 2 on number line, such that the space between 1 and 2 is divided into 10 equal parts. Hence, each equal part will be equal to one-tenth. Now, 1.1 is the first point between 1 and 2.

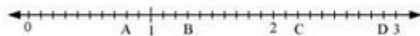


(d) 2.5 represents a point between 2 and 3 on number line, such that the space between 2 and 3 is divided into 10 equal parts. Hence, each equal part will be equal to one-tenth. Now, 2.5 is the fifth point between 2 and 3.



Question 9:

Write the decimal number represented by the points A, B, C, D on the given number line?



Answer:

- Point A represents 0.8.
- Point B represents 1.3.
- Point C represents 2.2.
- Point D represents 2.9.

Question 10:

- (a) The length of Ramesh's notebook is 9 cm 5 mm. What will be its length in cm?
- (b) The length of a young gram plant is 65 mm. Express its length in cm.

Answer:

(a) The length of Ramesh's notebook is 9 cm 5 mm.

Therefore, the length in cm is $\left(9 + \frac{5}{10}\right)$ cm = 9.5 cm

(b) The length of a gram plant is 65 mm.

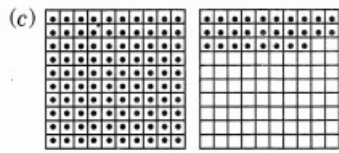
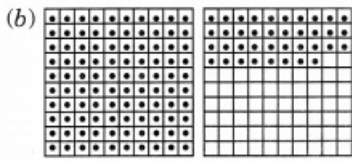
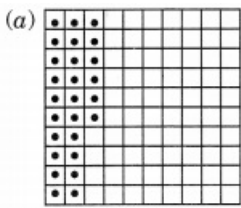
Therefore, the length in cm is $\frac{65}{10}$ = 6.5 cm

NCERT Solutions for Class 6 Maths Chapter 8 Decimals Ex 8.2

Exercise 8.2

Ex 8.2 Class 6 Maths Question 1.

Complete the table with the help of these boxes and use decimals to write the number.



	Ones	Tenths	Hundredths	Number
(a)				
(b)				
(c)				

Solution:

	Ones	Tenths	Hundredths	Number
(a)	0	2	6	0.26
(b)	1	3	8	1.38
(c)	1	2	8	1.28

Explanation:

(a) In this figure,

If small block out of 100 are shaded

∴ Decimal representation = 0.26

(b) 100 small blocks + 38 small blocks are shaded

$$\therefore \frac{100}{100} + \frac{38}{100} = 1 + \frac{38}{100} = 1.38$$

∴ Decimal representation = 1.38

(c) 100 small blocks + 28 small blocks are shaded

$$\therefore \frac{100}{100} + \frac{28}{100} = 1 + \frac{28}{100} = 1.28$$

∴ Decimal representation = 1.28

Ex 8.2 Class 6 Maths Question 2.

Write the numbers given in the following place value table in decimal form:

	Hund- reds (100)	Tens (10)	Ones (1)	Ten- ths $\left(\frac{1}{10}\right)$	Hund- redths $\left(\frac{1}{100}\right)$	Thou- sandths $\left(\frac{1}{1000}\right)$
(a)	0	0	3	2	5	0
(b)	1	0	2	6	3	0
(c)	0	3	0	0	2	5
(d)	2	1	1	9	0	2
(e)	0	1	2	2	4	1

Solution:

(a) 0 Hundreds + 0 Tens + 3 Ones + 2 Tenths + 5 Hundredths + 0 Thousandths

$$= 0 \times 100 + 0 \times 10 + 3 \times 1 + 2 \times \frac{1}{10} + 5 \times \frac{1}{100} + 0 \times \frac{1}{1000}$$

$$= 0 + 0 + 3 + \frac{2}{10} + \frac{5}{100} + \frac{0}{1000}$$

$$= 3 + 0.2 + 0.05 + 0.000 = 3.250 = 3.25$$

(b) 1 Hundreds + 0 Tens + 2 Ones + 6 Tenths + 3 Hundredths + 0 Thousandths

$$\begin{aligned} &= 1 \times 100 + 0 \times 10 + 2 \times 1 + 6 \times \frac{1}{10} + 3 \times \frac{1}{100} \\ &+ 0 \times \frac{1}{1000} \\ &= 100 + 0 + 2 + \frac{6}{10} + \frac{3}{100} + \frac{0}{1000} \\ &= 102.630 = 102.63 \end{aligned}$$

(c) 0 Hundreds + 3 Tens + 0 Ones + 0 Tenths + 2 Hundredths + 5 Thousandths

$$\begin{aligned} &= 0 \times 100 + 3 \times 10 + 0 \times 1 + 0 \times \frac{1}{10} + 2 \times \frac{1}{100} + 5 \times \frac{1}{1000} \\ &= 0 + 30 + 0 + 0.0 + 0.02 + 0.005 \\ &= 30.025 \end{aligned}$$

(d) 2 Hundreds + 1 Tens + 1 Ones + 9 Tenths + 0 Hundredths + 2 Thousandths

$$\begin{aligned} &= 2 \times 100 + 1 \times 10 + 2 \times \frac{1}{10} + 0 \times \frac{1}{100} + 2 \times \frac{1}{1000} \\ &= 200 + 10 + 1 + 0.9 + 0.00 + 0.002 \\ &= 211 + 0.902 = 211.902 \end{aligned}$$

(e) 0 Hundreds + 1 Tens + 2 Ones + 2 Tenths + 4 Hundredths + 1 Thousandths

$$\begin{aligned} &= 0 \times 100 + 1 \times 10 + 2 \times 1 + 2 \times \frac{1}{10} + 4 \times \frac{1}{100} + 1 \times \frac{1}{1000} \\ &= 0 + 10 + 2 + \frac{2}{10} + \frac{4}{100} + \frac{1}{1000} \\ &= 12 + 0.2 + 0.04 + 0.001 = 12.241 \end{aligned}$$

Ex 8.2 Class 6 Maths Question 3.

Write the following decimals in the place value table.

- (a) 0.29
- (b) 2.08
- (c) 19.60
- (d) 148.32
- (e) 200.812

Solution:

(a) $0.29 = 0 + 0.2 + 0.09 = 0 \text{ Ones} + 2 \text{ Tenths} + 9 \text{ Hundredths}$

(b) $2.08 = 2 + 0.0 + 0.08$
 $= 2 \text{ Ones} + 0 \text{ Tenths} + 8 \text{ Hundredths}$

(c) $19.60 = 10 + 9 + 0.6 + 0.00$
 $= 1 \text{ Tens} + 9 \text{ Ones} + 6 \text{ Tenths} + 0 \text{ Hundredths}$

(d) $148.32 = 100 + 40 + 8 + 0.3 + 0.02$
 $= 1 \text{ Hundred} + 4 \text{ Tens} + 8 \text{ Ones} + 3 \text{ Tenths} + 2 \text{ Hundredths}$

(e) $200.812 = 200 + 0.8 + 0.01 + 0.002$
 $= 2 \text{ Hundreds} + 8 \text{ Tenths} + 1 \text{ Hundredth} + 2 \text{ Thousandths}$

The above information, we can give in place value Table:

	Hundreds (100)	Tens (10)	Ones (1)	Tenths (1/10)	Hundredths (1/100)	Thousandths (1/1000)
(a)	0	0	0	2	9	0
(b)	0	0	2	0	8	0
(c)	0	1	9	6	0	0
(d)	1	4	8	3	2	0
(e)	2	0	0	8	1	2

Ex 8.2 Class 6 Maths Question 4.

Write each of the following as decimals.

(a) $20 + 9 + \frac{4}{10} + \frac{1}{100}$ (b) $137 + \frac{5}{100}$

(c) $\frac{7}{10} + \frac{6}{100} + \frac{4}{1000}$ (d) $23 + \frac{2}{10} + \frac{6}{1000}$

(e) $700 + 20 + 5 + \frac{9}{100}$

Solution:

$$(a) 20 + 9 + \frac{4}{10} + \frac{1}{100} = 29 + 0.4 + 0.01 = 29.41$$

$$(b) 137 + \frac{5}{100} = 137 + 0.05 = 137.05$$

$$(c) \frac{7}{10} + \frac{6}{100} + \frac{4}{1000} = 0.7 + 0.06 + 0.004 = 0.764$$

$$(d) 23 + \frac{2}{10} + \frac{6}{1000} = 23 + 0.2 + 0.006 = 23.206$$

$$(e) 700 + 20 + 5 + \frac{9}{100} = 725 + 0.09 = 725.09$$

Ex 8.2 Class 6 Maths Question 5.

Write each of the following decimals in words.

- (a) 0.03
- (b) 1.20
- (c) 108.56
- (d) 10.07
- (e) 0.032
- (f) 5.008

Solution:

- (a) 0.03 = Zero point zero three
- (b) 1.20 = One point two zero
- (c) 108.56 = One hundred eight point fifty-six
- (d) 10.07 = Ten point zero seven
- (e) 0.032 = Zero point zero three two
- (f) 5.008 = Five point zero zero eight

Ex 8.2 Class 6 Maths Question 6.

Between which two numbers in tenths place on the number line does each of the given numbers lie?

- (a) 0.06
- (b) 0.45
- (c) 0.19
- (d) 0.66
- (e) 0.92
- (f) 0.57

Solution:

- (a) 0.06 lies between 0 and 0.1
- (b) 0.45 lies between 0.4 and 0.5
- (c) 0.19 lies between 0.1 and 0.2
- (d) 0.66 lies between 0.6 and 0.7
- (e) 0.92 lies between 0.9 and 1.0
- (f) 0.57 lies between 0.5 and 0.6

Ex 8.2 Class 6 Maths Question 7.

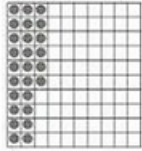
Write as fraction in lowest terms.

- (a) 0.60
- (b) 0.05
- (c) 0.75
- (e) 0.25
- (f) 0.125
- (g) 0.066

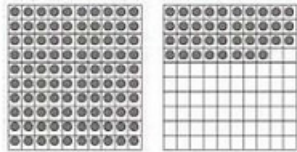
Question 1:

Complete the table with the help of these boxes and use decimals to write the number.

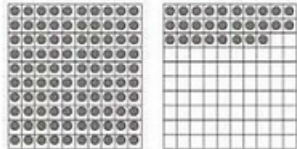
(a)



(b)



(c)



	Ones	Tenths	Hundredths	Number
(a)	-	-	-	-
(b)	-	-	-	-
(c)	-	-	-	-

Answer:

Row	Ones	Tenths	Hundredths	Numbers
(a)	0	2	6	0.26

(b)	1	3	8	1.38
(c)	1	2	8	1.28

Question 2:

Write the numbers given in the following place value table in decimal form.

	Hundreds 100	Tens 10	Ones 1	Tenths $\frac{1}{10}$	Hundredths $\left(\frac{1}{100}\right)$	Thousandths $\frac{1}{1000}$
(a)	0	0	3	2	5	0
(b)	1	0	2	6	3	0
(c)	0	3	0	0	2	5
(d)	2	1	1	9	0	2
(e)	0	1	2	2	4	1

Answer:

(a) $3 + \frac{2}{10} + \frac{5}{100} = 3 + 0.2 + 0.05 = 3.25$

(b) $100 + 2 + \frac{6}{10} + \frac{3}{100} = 102 + 0.6 + 0.03 = 102.63$

(c) $30 + \frac{2}{100} + \frac{5}{1000} = 30 + 0.02 + 0.005 = 30.025$

$$(d) \quad 200 + 10 + 1 + \frac{9}{10} + \frac{2}{1000} = 211 + 0.9 + 0.002 = 211.902$$

$$(e) \quad 10 + 2 + \frac{2}{10} + \frac{4}{100} + \frac{1}{1000} = 12 + 0.2 + 0.04 + 0.001 = 12.241$$

Question 3:

Write the following decimals in the place value table.

(a) 0.29 (b) 2.08 (c) 19.60 (d) 148.32

(e) 200.812

Answer:

$$(a) \quad 0.29 = 0.2 + 0.09 = \frac{2}{10} + \frac{9}{100}$$

$$(b) \quad 2.08 = 2 + 0.08 = 2 + \frac{8}{100}$$

$$(c) \quad 19.60 = 19 + 0.60 = 10 + 9 + \frac{6}{10}$$

$$(d) \quad 148.32 = 148 + 0.3 + 0.02 = 100 + 40 + 8 + \frac{3}{10} + \frac{2}{100}$$

$$(e) \quad 200.812 = 200 + 0.8 + 0.01 + 0.002 = 200 + \frac{8}{10} + \frac{1}{100} + \frac{2}{1000}$$

Row	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
(a)	0	0	0	2	9	0
(b)	0	0	2	0	8	0
(c)	0	1	9	6	0	0
(d)	1	4	8	3	2	0
(e)	2	0	0	8	1	2

Question 4:

Write each of the following decimals.

$$(a) \quad 20 + 9 + \frac{4}{10} + \frac{1}{100} \quad (b) \quad 137 + \frac{5}{100}$$

$$(c) \quad \frac{7}{10} + \frac{6}{100} + \frac{4}{1000} \quad (d) \quad 23 + \frac{2}{10} + \frac{6}{1000}$$

$$(e) \quad 700 + 20 + 5 + \frac{9}{100}$$

Answer:

$$(a) \quad 20 + 9 + \frac{4}{10} + \frac{1}{100} = 29 + 0.4 + 0.01 = 29.41$$

$$(b) \quad 137 + \frac{5}{100} = 137 + 0.05 = 137.05$$

$$(c) \frac{7}{10} + \frac{6}{100} + \frac{4}{1000} = 0.7 + 0.06 + 0.004 = 0.764$$

$$(d) 23 + \frac{2}{10} + \frac{6}{1000} = 23 + 0.2 + 0.006 = 23.206$$

$$(e) 700 + 20 + 5 + \frac{9}{100} = 725 + 0.09 = 725.09$$

Question 5:

Write each of the following decimals in words.

(a) 0.03 (b) 1.20

(c) 108.56 (d) 10.07

(e) 0.032 (f) 5.008

Answer:

(a) 0.03 = zero point zero three

(b) 1.20 = one point two zero

(c) 108.56 = one hundred eight point five six

(d) 10.07 = ten point zero seven

(e) 0.032 = zero point zero three two

(f) 5.008 = five point zero zero eight

Question 6:

Between which two numbers in tenths place on the number line does each of the given number lie?

(a) 0.06 (b) 0.45

(c) 0.19 (d) 0.66

(e) 0.92 (f) 0.57

Answer:

(a) 0.06 \rightarrow 0 and 0.1

(b) 0.45 \rightarrow 0.4 and 0.5

(c) 0.19 \rightarrow 0.1 and 0.2

(d) 0.66 \rightarrow 0.6 and 0.7

(e) 0.92 \rightarrow 0.9 and 1.0

(f) 0.57 \rightarrow 0.5 and 0.6

Question 7:

Write as fractions in lowest terms.

(a) 0.60 (b) 0.05

(c) 0.75 (d) 0.18

(e) 0.25 (f) 0.125

(g) 0.066

Answer:

$$(a) 0.60 = \frac{60}{100} = \frac{6}{10} = \frac{3}{5}$$

$$(b) 0.05 = \frac{5}{100} = \frac{1}{20}$$

$$(c) 0.75 = \frac{75}{100} = \frac{3}{4}$$

$$(d) 0.18 = \frac{18}{100} = \frac{9}{50}$$

$$(e) 0.25 = \frac{25}{100} = \frac{1}{4}$$

$$(f) 0.125 = \frac{125}{1000} = \frac{1}{8}$$

$$(g) 0.066 = \frac{66}{1000} = \frac{33}{500}$$

NCERT Solutions for Class 6 Maths Chapter 8 Decimals Ex 8.3

Exercise 8.3

Ex 8.3 Class 6 Maths Question 1.

Which is greater?

- (a) 0.3 or 0.4
- (b) 0.07 or 0.02
- (c) 3 or 0.8
- (d) 0.5 or 0.05
- (e) 1.23 or 1.2
- (f) 0.099 or 0.19
- (g) 1.5 or 1.50
- (h) 1.431 or 1.490
- (i) 3.3 or 3.300
- (j) 5.64 or 5.603

Solution:

- (a) 0.3 or 0.4

$$0.3 = \frac{3}{10} \text{ and } 0.4 = \frac{4}{10}$$

$$\text{Here, } \frac{3}{10} < \frac{4}{10}$$

∴ 0.4 is greater than 0.3

- (b) 0.07 or 0.02

$$0.07 = \frac{7}{100} \text{ and } 0.02 = \frac{2}{100}$$

$$\text{Here, } \frac{7}{100} > \frac{2}{100}$$

∴ 0.07 is greater than 0.02.

- (c) 3 or 0.8

3 is greater than 0 and $0 > 0.8$

∴ 3 is greater than 0.8.

- (d) 0.5 or 0.05

$$0.5 = 0.50 = \frac{50}{100} \text{ and } 0.05 = \frac{5}{100}$$

$$\text{Here, } \frac{50}{100} > \frac{5}{100}$$

∴ 0.5 is greater than 0.05.

- (e) 1.23 or 1.2

$$1.23 = \frac{123}{100} \text{ and } 1.2 = \frac{12}{10} = \frac{120}{100}$$

$$\text{Here, } \frac{123}{100} > \frac{120}{100}$$

∴ 1.23 is greater than 1.2

- (f) 0.099 or 0.19

$$0.099 = \frac{99}{1000} \text{ and } 0.19 = \frac{19}{100} = \frac{190}{1000}$$

$$\text{Here, } \frac{99}{1000} < \frac{190}{1000}$$

∴ 0.19 is greater than 0.099.

- (g) 1.5 or 1.50

$$1.5 = \frac{1.5}{10} = \frac{150}{100} \text{ and } 1.50 = \frac{150}{100}$$

$$\text{Here, } \frac{150}{100} = \frac{150}{100}$$

∴ 1.5 is greater than 1.50.

- (h) 1.431 or 1.490

$$1.431 = \frac{1431}{1000} \text{ and } 1.490 = \frac{1490}{1000}$$

$$\text{Here, } \frac{1431}{1000} < \frac{1490}{1000}$$

∴ 1.490 is greater than 1.431.

- (i) 3.3 or 3.300

$$3.3 = 3.300 = \frac{3300}{1000}$$

$$\text{and } 3.300 = \frac{3300}{1000}$$

$$\text{Here, } \frac{3300}{1000} = \frac{3300}{1000}$$

∴ 3.3 is greater than 3.300.

(j) 5.64 or 5.603

$$5.64 = 5.640 = \frac{5640}{1000}$$

$$\text{and } 5.603 = \frac{5603}{1000}$$

$$\text{Here, } \frac{5640}{1000} > \frac{5603}{1000}$$

∴ 5.64 is greater than 5.603.

Question 1:

Which is greater?

(a) 0.3 or 0.4 (b) 0.07 or 0.02

(c) 3 or 0.8 (d) 0.5 or 0.05

(e) 1.23 or 1.2 (f) 0.099 or 0.19

(g) 1.5 or 1.50 (h) 1.431 or 1.490

(i) 3.3 or 3.300 (j) 5.64 or 5.603

Answer:

(a) 0.3 or 0.4

The whole parts of these numbers are same. It can be seen that the tenth part of 0.4 is greater than that of 0.3.

Hence, $0.4 > 0.3$

(b) 0.07 and 0.02

Here, both numbers have same parts up to the tenth place. However, the hundredth part of 0.07 is greater than that of 0.02.

Hence, $0.07 > 0.02$

(c) 3 or 0.8

It can be seen that the whole part of 3 is greater than that of 0.8.

Hence, $3 > 0.8$

(d) 0.5 or 0.05

The whole parts of these numbers are same. It can be seen that the tenth part of 0.5 is greater than that of 0.05.

Hence, $0.5 > 0.05$

(e) 1.23 or 1.20

Here, both numbers have same parts up to the tenth place. However, the hundredth part of 1.23 is greater than that of 1.20.

Hence, $1.23 > 1.20$

(f) 0.099 or 0.19

The whole parts of these numbers are same. It can be seen that the tenth part of 0.19 is greater than that of 0.099.

Hence, $0.099 < 0.19$

(g) 1.5 or 1.50

Here, both numbers have the same parts up to the tenth place. Also, there is no digit at hundredth place of 1.5. This implies that this digit will be 0, which is same as the digit at the hundredth place of 1.50. Therefore, both these numbers are equal.

(h) 1.431 or 1.490

Here, both numbers have the same parts up to the tenth place. However, the hundredth part of 1.490 is greater than that of 1.431.

Hence, $1.431 < 1.490$

(i) 3.3 or 3.300

Here, both numbers have the same parts up to the tenth place. Also, there is no digit at hundredth and thousandth place of 3.3. This implies that these digits are 0, which are the same as the digits at the hundredth and thousandth place of 3.300. Therefore, both these numbers are equal.

(j) 5.64 or 5.603

Here, both numbers have the same parts up to the tenth place. However, the hundredth part of 5.64 is greater than that of 5.603.

Hence, $5.640 > 5.603$

Exercise 8.4

Ex 8.4 Class 6 Maths Question 1.

Express as rupees using decimals.

- (a) 5 paise
- (b) 75 paise
- (c) 20 paise
- (d) 50 rupees 90 paise
- (e) 725 paise

Solution:

$$(a) \text{ 5 paise} = 5 \times \frac{1}{100} = 0.05 [\because 100 \text{ paise} = ₹ 1]$$

So, 5 paise = ₹ 0.05

$$(b) \text{ 75 paise} = 75 \times \frac{1}{100} = 0.75$$

[\because 100 paise = ₹ 1]

So, 75 paise = ₹ 0.75

$$(c) \text{ 20 paise} = 20 \times \frac{1}{100} = 0.20$$

[\because 100 paise = ₹ 1]

So, 20 paise = ₹ 0.20

(d) 50 rupees 90 paise

$$= \left(₹ 50 + ₹ \frac{90}{100} \right) = ₹ \left(50 + \frac{0.90}{100} \right)$$

[\because 100 paise = ₹ 1]

= ₹ (50 + 0.90)

So, 50 rupees 90 paise = ₹ 50.90

$$(e) \text{ 725 paise} = ₹ 725 \times \frac{1}{100}$$

[\because 100 paise = ₹ 1]

= ₹ 7.25

So, 725 paise = ₹ 7.25

Ex 8.4 Class 6 Maths Question 2.

Express as metres using decimals,

- (a) 15cm
- (b) 6cm
- (c) 2m 45cm
- (d) 9m 7cm
- (e) 419 cm

Solution:

$$(a) \text{ 15 cm} = 15 \times \frac{1}{100} \text{ m} = 0.15 \text{ m}$$

[\because 100 cm = 1 m]

So, 15 cm = 0.15 m

$$(b) \text{ 6 cm} = 6 \times \frac{1}{100} \text{ m} = 0.06 \text{ m}$$

[\because 100 cm = 1 m]

So, 6 cm = 0.06 m

$$(c) \text{ 2 m 45 cm} = 2 \text{ m} + \frac{45}{100} \text{ m}$$

[\because 100 cm = 1 m]

$$= \left(2 + \frac{45}{100} \right) \text{ m} = (2 + 0.45) \text{ m}$$

= 2.45 m

So, 2 m 45 cm = 2.45 m

$$(d) \text{ 9 m 7 cm} = \left(9 \text{ m} + \frac{7}{100} \text{ m} \right) \quad [\because 100 \text{ cm} = 1 \text{ m}]$$

$$= \left(9 + \frac{7}{100}\right) \text{ m} = (9 + 0.07) \text{ m}$$

$$= 9.07 \text{ m}$$

So, 9 m 7 cm = 9.07 m

(e) $419 \text{ cm} = 419 \times \frac{1}{100} \text{ m}$ [$\because 100 \text{ cm} = 1 \text{ m}$]

$$= 4.19 \text{ m}$$

So, 419 cm = 4.19 m

Ex 8.4 Class 6 Maths Question 3.

Express as cm using decimals.

(a) 5 mm

(b) 60 mm

(c) 164 mm

(d) 9 cm 8 mm

(e) 93 mm

Solution:

(a) $5 \text{ mm} = 5 \times \frac{1}{10} = 0.5 \text{ cm}$ [$\because 10 \text{ mm} = 1 \text{ cm}$]

So, 5 mm = 0.5 cm

(b) $60 \text{ mm} = 60 \times \frac{1}{10} = 6.0 \text{ cm}$
[$\because 10 \text{ mm} = 1 \text{ cm}$]

So, 60 mm = 6.0 cm

(c) $164 \text{ mm} = 164 \times \frac{1}{10} = 16.4 \text{ cm}$
[$\because 10 \text{ mm} = 1 \text{ cm}$]

So, 164 mm = 16.4 cm

(d) $9 \text{ cm } 8 \text{ mm} = 9 \text{ cm} + 8 \times \frac{1}{10} \text{ cm}$
[$\because 10 \text{ mm} = 1 \text{ cm}$]

$$= \left(9 + \frac{8}{10}\right) \text{ cm} = (9 + 0.8) \text{ cm}$$

$$= 9.8 \text{ cm}$$

So, 9 cm 8 mm = 9.8 cm.

(e) $93 \text{ mm} = 93 \times \frac{1}{10} \text{ cm} = 9.3 \text{ cm}$
[$\because 10 \text{ mm} = 1 \text{ cm}$]

So, 93 mm = 9.3 cm.

Ex 8.4 Class 6 Maths Question 4.

Express as km using decimals.

(a) 8 m

(b) 88 m

(c) 8888 m

(d) 70km 5m

Solution:

(a) $8 \text{ m} = 8 \times \frac{1}{1000} = 0.008 \text{ km}$
[$\because 1000 \text{ m} = 1 \text{ km}$]

So, 8 m = 0.008 km

(b) $88 \text{ m} = 88 \times \frac{1}{1000} = 0.088 \text{ km}$
[$\because 1000 \text{ m} = 1 \text{ km}$]

So, 88 m = 0.088 km

(c) $8888 \text{ m} = 8888 \times \frac{1}{1000} = 8.888 \text{ km}$
[$\because 1000 \text{ m} = 1 \text{ km}$]

So, 8888 m = 8.888 km

$$(d) 70 \text{ km } 5 \text{ m} = \left(70 \text{ km} + \frac{5}{1000} \text{ km} \right)$$

$$\quad \quad \quad [\because 1000 \text{ m} = 1 \text{ km}]$$

$$= \left(70 + \frac{5}{1000} \right) \text{ km}$$

$$= (70 + 0.005) \text{ km} = 70.005 \text{ km}$$

So, 70 km 5 m = 70.005 km.

Ex 8.4 Class 6 Maths Question 5.

Express as kg using decimals.

(a) 2 g

(b) 100 g

(c) 3750 g

(d) 5 kg 8 g

(e) 26 kg 50 g

Solution:

$$(a) 2 \text{ g} = 2 \times \frac{1}{1000} \text{ kg} = 0.002 \text{ kg}$$

$$\quad \quad \quad [\because 1000 \text{ g} = 1 \text{ kg}]$$

So, 2 g = 0.002 kg

$$(b) 100 \text{ g} = 100 \times \frac{1}{1000} \text{ kg} = 0.100 \text{ kg}$$

$$\quad \quad \quad [\because 1000 \text{ g} = 1 \text{ kg}]$$

So, 100 g = 0.100 kg

$$(c) 3750 \text{ g} = 3750 \times \frac{1}{1000} \text{ kg} = 3.750 \text{ kg}$$

$$\quad \quad \quad [\because 1000 \text{ g} = 1 \text{ kg}]$$

So, 3750 g = 3.750 kg

$$(d) 5 \text{ kg } 8 \text{ g} = \left(5 \text{ kg} + \frac{8}{1000} \text{ kg} \right)$$

$$\quad \quad \quad [\because 1000 \text{ g} = 1 \text{ kg}]$$

$$= \left(5 + \frac{8}{1000} \right) \text{ kg} = (5 + 0.008) \text{ kg}$$

$$= 5.008 \text{ kg}$$

So, 5 kg 8 g = 5.008 kg

$$(e) 26 \text{ kg } 50 \text{ g} = 26 \text{ kg} + \frac{50}{1000} \text{ kg}$$

$$\quad \quad \quad [\because 1000 \text{ g} = 1 \text{ kg}]$$

$$= \left(26 + \frac{50}{1000} \right) \text{ kg}$$

$$= (26 + 0.050) \text{ kg} = 26.050 \text{ kg}$$

So, 26 kg 50 g = 26.050 kg

Exercise 8.4

Question 1:

Express as rupees using decimals.

- (a) 5 paise (b) 75 paise
(c) 20 paise (d) 50 rupees 90 paise
(e) 725 paise

Answer:

It is known that there are 100 paise in 1 rupee.

(a) $5 \text{ paise} = \frac{5}{100} \text{ rupees} = \text{Re } 0.05$

(b) $75 \text{ paise} = \frac{75}{100} \text{ rupees} = \text{Re } 0.75$

(c) $20 \text{ paise} = \frac{20}{100} \text{ rupees} = \text{Re } 0.20$

(d) $50 \text{ rupees } 90 \text{ paise} = \left(50 + \frac{90}{100}\right) \text{ rupees} = \text{Rs } 50.90$

(e) $725 \text{ paise} = \frac{725}{100} \text{ rupees} = \text{Rs } 7.25$

Question 2:

Express as metres using decimals.

- (a) 15 cm (b) 6 cm
(c) 2 m 45 cm (d) 9 m 7 cm
(e) 419 cm

Answer:

It is known that there are 100 cm in 1 metre.

(a) $15 \text{ cm} = \frac{15}{100} \text{ m} = 0.15 \text{ m}$

(b) $6 \text{ cm} = \frac{6}{100} \text{ m} = 0.06 \text{ m}$

(c) $2 \text{ m } 45 \text{ cm} = \left(2 + \frac{45}{100}\right) \text{ m} = 2.45 \text{ m}$

(d) $9 \text{ m } 7 \text{ cm} = \left(9 + \frac{7}{100}\right) \text{ m} = 9.07 \text{ m}$

(e) $419 \text{ cm} = \frac{419}{100} \text{ m} = 4.19 \text{ m}$

Question 3:

Express as cm using decimals.

- (a) 5 mm (b) 60 mm
(c) 164 mm (d) 9 cm 8 mm
(e) 93 mm

It is known that there are 10 mm in 1 cm.

(a) $5 \text{ mm} = \frac{5}{10} \text{ cm} = 0.5 \text{ cm}$

(b) $60 \text{ mm} = \frac{60}{10} \text{ cm} = 6.0 \text{ cm}$

(c) $164 \text{ mm} = \frac{164}{10} \text{ cm} = 16.4 \text{ cm}$

(d) $9 \text{ cm } 8 \text{ mm} = \left(9 + \frac{8}{10}\right) \text{ cm} = 9.8 \text{ cm}$

(e) $93 \text{ mm} = \frac{93}{10} \text{ cm} = 9.3 \text{ cm}$

Question 4:

Express as km using decimals.

(a) 8 m (b) 88 m

(c) 8888 m (d) 70 km 5 m

Answer:

It is known that there are 1000 metres in 1 km.

(a) $8 \text{ m} = \frac{8}{1000} \text{ km} = 0.008 \text{ km}$

(b) $88 \text{ m} = \frac{88}{1000} \text{ km} = 0.088 \text{ km}$

(c) $8888 \text{ m} = \frac{8888}{1000} \text{ km} = 8.888 \text{ km}$

(d) $70 \text{ km } 5 \text{ m} = \left(70 + \frac{5}{1000}\right) \text{ km} = 70.005 \text{ km}$

Question 5:

Express as kg using decimals.

(a) 2 g (b) 100 g

(c) 3750 g (d) 5 kg 8 g

(e) 26 kg 50 g

Answer:

It is known that there are 1000 grams in 1 kg.

(a) $2 \text{ g} = \frac{2}{1000} \text{ kg} = 0.002 \text{ kg}$

(b) $100 \text{ g} = \frac{100}{1000} \text{ kg} = 0.1 \text{ kg}$

(c) $3750 \text{ g} = \frac{3750}{1000} \text{ kg} = 3.750 \text{ kg}$

(d) $5 \text{ kg } 8 \text{ g} = \left(5 + \frac{8}{1000}\right) \text{ kg} = 5.008 \text{ kg}$

(e) $26 \text{ kg } 50 \text{ g} = \left(26 + \frac{50}{1000}\right) \text{ kg} = 26.050 \text{ kg}$

NCERT Solutions for Class 6 Maths Chapter 8 Decimals Ex 8.5

Exercise 8.5

Ex 8.5 Class 6 Maths Question 1.

Find the sum in each of the following:

(a) $0.007 + 8.5 + 30.08$

(b) $15 + 0.632 + 13.8$

(c) $27.076 + 0.55 + 0.004$

(d) $25.65 + 9.005 + 3.7$

(e) $0.75 + 10.425 + 2$

(f) $280.69 + 25.2 + 38$

Solution:

(a) $0.007 + 8.5 + 30.08$

$$= 0.007 + 8.500 + 30.080 \text{ (making like decimals)}$$

$$= 38.587$$

$$\begin{array}{r} 0.007 \\ 8.500 \\ + 30.080 \\ \hline 38.587 \end{array}$$

$$\text{(b) } 15 + 0.632 + 13.8$$

$$= 15.000 + 0.632 + 13.800 \text{ (making like decimals)}$$

$$= 29.432$$

$$\begin{array}{r} 15.000 \\ 0.632 \\ 13.800 \\ \hline 29.432 \end{array}$$

$$\text{(c) } 27.076 + 0.55 + 0.004$$

$$= 27.076 + 0.550 + 0.004 \text{ (making like decimals)}$$

$$= 27.630$$

$$\begin{array}{r} 27.076 \\ 0.550 \\ + 0.004 \\ \hline 27.630 \end{array}$$

$$\text{(d) } 25.65 + 9.005 + 3.7$$

$$= 25.650 + 9.005 + 3.700 \text{ (making like decimals)}$$

$$= 38.355$$

$$\begin{array}{r} 25.650 \\ 9.005 \\ + 3.700 \\ \hline 38.355 \end{array}$$

$$\text{(e) } 0.75 + 10.425 + 2$$

$$= 0.750 + 10.425 + 2.000 \text{ (making like decimals)}$$

$$= 13.175$$

$$\begin{array}{r} 0.750 \\ 10.425 \\ + 2.000 \\ \hline 13.175 \end{array}$$

$$\text{(f) } 280.69 + 25.2 + 38$$

$$= 280.69 + 25.20 + 38.00 \text{ (making like decimals)}$$

$$= 343.89$$

$$\begin{array}{r} 280.69 \\ 25.20 \\ + 38.00 \\ \hline 343.89 \end{array}$$

Ex 8.5 Class 6 Maths Question 2.

Rashid spent ₹35.75 for Maths book and ₹32.60 for Science book. Find the total amount spent by Rashid.

Solution:

Money spent by Rashid for Maths book = ₹35.75

Money spent by Rashid for Science book = ₹32.60

∴ Total money spent by Rashid on both books = ₹35.75 + ₹32.60 = ₹68.35

$$\begin{array}{r} 35.75 \\ + 32.60 \\ \hline 68.35 \end{array}$$

Ex 8.5 Class 6 Maths Question 3.

Radhika's mother gave her ₹10.50 and her father gave her ₹15.80, find the total amount given to Radhika by her parents.

Solution:

Money given by Radhika's mother = ₹10.50

Money given by her father = ₹15.80

∴ Total money given to her by her parents

= ₹10.50 + ₹15.80 = ₹26.30

$$\begin{array}{r} 10.50 \\ + 15.80 \\ \hline 26.30 \end{array}$$

Ex 8.5 Class 6 Maths Question 4.

Nasreen bought 3 m 20 cm cloth for her shirt and 2 m 5 cm cloth for her trouser. Find the total length of cloth bought by her.

Solution:

Length of cloth bought by Nasreen for her shirt = 3 m 20 cm = 3.20 m

Length of cloth bought by her for her trouser = 2 m 5 cm = 2.05 m

Total length of cloth bought by her = 3.20 m + 2.05 m = 5.25 m

$$\begin{array}{r} 3.20 \\ + 2.05 \\ \hline 5.25 \end{array}$$

Ex 8.5 Class 6 Maths Question 5.

Naresh walked 2 km 35 m in the morning and 1 km 7 m in the evening. How much distance did he walk in all?

Solution:

Distance walked by Naresh in the morning = 2 km 35 m = $(2 + \frac{35}{1000})$ km = 2.035 km.

Distance walked by him in the evening = 1 km 7 m = $(1 + \frac{7}{1000})$ km = 1.007 km

∴ Total distance walked by him in all

= (2.035 + 1.007) km

= 3.042 km

$$\begin{array}{r} 2.035 \\ + 1.007 \\ \hline 3.042 \end{array}$$

Ex 8.5 Class 6 Maths Question 6.

Sunita travelled 15 km 268 m by bus, 7 km 7 m by car and 500 m on foot in order to reach her school. How far is her school from her residence?

Solution:

Distance travelled by Sunita by bus

= 15 km 268 m = $(15 + \frac{268}{1000})$ km = 15.268 km

Distance travelled by her by car

= 7 km 7 m = $(7 + \frac{7}{1000})$ km

= 7.007 km

Exercise 8.5

Question 1:

Find the sum in each of the following:

(a) $0.007 + 8.5 + 30.08$

(b) $15 + 0.632 + 13.8$

(c) $27.076 + 0.55 + 0.004$

(d) $25.65 + 9.005 + 3.7$

(e) $0.75 + 10.425 + 2$

(f) $280.69 + 25.2 + 38$

Answer:

(a) $0.007 + 8.5 + 30.08$

$$\begin{array}{r} 0.007 \\ 8.500 \\ + 30.080 \\ \hline 38.587 \end{array}$$

(b) $15 + 0.632 + 13.8$

$$\begin{array}{r} 15.000 \\ 0.632 \\ + 13.800 \\ \hline 29.432 \end{array}$$

$$(c) 27.076 + 0.55 + 0.004$$

$$\begin{array}{r} 27.076 \\ 0.550 \\ + 0.004 \\ \hline 27.630 \end{array}$$

$$(d) 25.65 + 9.005 + 3.7$$

$$\begin{array}{r} 25.650 \\ 9.005 \\ + 3.700 \\ \hline 38.355 \end{array}$$

$$(e) 0.75 + 10.425 + 2$$

$$\begin{array}{r} 0.750 \\ 10.425 \\ + 2.000 \\ \hline 13.175 \end{array}$$

$$(f) 280.69 + 25.2 + 38$$

$$\begin{array}{r} 280.69 \\ 25.20 \\ + 38.00 \\ \hline 343.89 \end{array}$$

Question 2:

Rashid spent Rs 35.75 for Maths book and Rs 32.60 for Science book. Find the total amount spent by Rashid.

Answer:

Price of Maths book = Rs. 35.75

Price of Science book = Rs. 32.60

Total amount spent by Rashid is

$$\begin{array}{r} 35.75 \\ + 32.60 \\ \hline 68.35 \end{array}$$

Therefore, the amount spent by Rashid is Rs 68.35.

Question 3:

Radhika's mother gave her Rs 10.50 and her father gave her Rs 15.80, find the total amount given to Radhika by the parents.

Answer:

Amount given by mother = Rs. 10.50

Amount given by father = Rs. 15.80

Total amount given by parents is

$$\begin{array}{r} 10.50 \\ + 15.80 \\ \hline 26.30 \end{array}$$

Therefore, the amount given by her parents is Rs 26.30.

Question 4:

Nasreen bought 3 m 20 cm cloth for her shirt and 2 m 5 cm cloth for her trouser. Find the total length of cloth bought by her.

Answer:

Cloth for shirt = 3 m 20 cm

Cloth for trouser = 2 m 5 cm

Total length of cloth is

$$\begin{array}{r} 3.20 \\ +2.05 \\ \hline 5.25 \end{array}$$

Hence, the total length of cloth bought by her is 5.25 m.

Question 5:

Naresh walked 2 km 35 m in the morning and 1 km 7 m in the evening. How much distance did he walk in all?

Answer:

Distance walked in the morning = 2 km 35 m

$$= \left(2 + \frac{35}{1000} \right) \text{ km}$$

= 2.035 km

Distance walked in the evening = 1 km 7 m

$$= \left(1 + \frac{7}{1000} \right) \text{ km}$$

= 1.007 km

Total distance walked by him is

$$\begin{array}{r} 2.035 \\ + 1.007 \\ \hline 3.042 \text{ km} \end{array}$$

Question 7:

Ravi purchased 5 kg 400 g rice, 2 kg 20 g sugar and 10 kg 850 g flour. Find the total weight of his purchases.

Answer:

$$\text{Weight of rice} = 5 \text{ kg } 400 \text{ g} = \left(5 + \frac{400}{1000} \right) \text{ kg} = 5.400 \text{ kg}$$

$$\text{Weight of sugar} = 2 \text{ kg } 20 \text{ g} = \left(2 + \frac{20}{1000} \right) \text{ kg} = 2.020 \text{ kg}$$

$$\text{Weight of flour} = 10 \text{ kg } 850 \text{ g} = \left(10 + \frac{850}{1000} \right) \text{ kg} = 10.850 \text{ kg}$$

Total weight of his purchases is

$$\begin{array}{r} 5.400 \\ 2.020 \\ +10.850 \\ \hline 18.270 \text{ km} \end{array}$$

Question 6:

Sunita travelled 15 km 268 m by bus, 7 km 7 m by car and 500 m on foot in order to reach her school. How far is her school from her residence?

Answer:

Distance travelled by bus = 15 km 268 m

$$= \left(15 + \frac{268}{1000}\right) \text{ km}$$

$$= 15.268 \text{ km}$$

Distance travelled by car = 7 km 7 m

$$= \left(7 + \frac{7}{1000}\right) \text{ km}$$

$$= 7.007 \text{ km}$$

Distance travelled on foot = 500 m

$$= \frac{500}{1000} \text{ km}$$

$$= 0.500 \text{ km}$$

Total distance of school from her residence is

$$\begin{array}{r} 15.268 \\ 7.007 \\ +0.500 \\ \hline 22.775 \text{ km} \end{array}$$

NCERT Solutions for Class 6 Maths Chapter 8 Decimals Ex 8.6

Exercise 8.6

Ex 8.6 Class 6 Maths Question 1.

Subtract:

(a) ₹18.25 from ₹20.75

(b) 202.54 m from 250 m

(c) ₹5.36 from ₹8.40

(d) 2.051 km from 5.206 km

(e) 0.314 kg from 2.107 kg

Solution:

(a) ₹18.25 from 20.75

$$= 20.75 - 18.25$$

$$= 2.50$$

$$\begin{array}{r} 20.75 \\ -18.25 \\ \hline 2.50 \end{array}$$

$$\begin{array}{r} 20.75 \\ -18.25 \\ \hline 2.50 \end{array}$$

(b) 202.54 m from 250 m

$$= 250 \text{ m} - 202.54 \text{ m}$$

$$= 250.00 \text{ m} - 202.54 \text{ m}$$

$$= 47.46 \text{ m}$$

$$\begin{array}{r} 250.00 \\ -202.54 \\ \hline 47.46 \end{array}$$

$$\begin{array}{r} 250.00 \\ -202.54 \\ \hline 47.46 \end{array}$$

(c) ₹5.36 from ₹8.40

$$= ₹8.40 - ₹5.36$$

$$= ₹3.04$$

$$\begin{array}{r} 8.40 \\ -5.36 \\ \hline 3.04 \end{array}$$

$$\begin{array}{r} 8.40 \\ -5.36 \\ \hline 3.04 \end{array}$$

(d) 2.051 km from 5.206 km

$$= 5.206 \text{ km} - 2.051 \text{ km}$$

$$= 3.155 \text{ km}$$

$$\begin{array}{r} 5.206 \\ - 2.051 \\ \hline 3.155 \end{array}$$

(e) 0.314 kg from 2.107 kg

$$= 2.107 \text{ kg} - 0.314 \text{ kg}$$

$$= 1.793 \text{ kg}$$

$$\begin{array}{r} 2.107 \\ - 0.314 \\ \hline 1.793 \end{array}$$

Ex 8.6 Class 6 Maths Question 2.

Find the value of:

(a) $9.756 - 6.28$

(b) $21.05 - 15.27$

(c) $18.5 - 6.79$

(d) $11.6 - 9.847$

Solution:

(a) We have $9.756 - 6.25$

$$= 9.756 - 6.250$$

$$= 3.506$$

$$\begin{array}{r} 9.756 \\ - 6.250 \\ \hline 3.506 \end{array}$$

(b) We have $21.05 - 15.27$

$$= 5.78$$

$$\begin{array}{r} 21.05 \\ - 15.27 \\ \hline 5.78 \end{array}$$

(c) We have $18.5 - 6.79$

$$= 18.50 - 6.79$$

$$= 11.71$$

$$\begin{array}{r} 18.50 \\ - 6.79 \\ \hline 11.71 \end{array}$$

(d) $11.6 - 9.847$

$$= 11.600 - 9.847$$

$$= 1.753$$

$$\begin{array}{r} 11.600 \\ - 9.847 \\ \hline 1.753 \end{array}$$

Ex 8.6 Class 6 Maths Question 3.

Raju bought a book for ₹35.65. He gave ₹50 to the shopkeeper. How much money did he get back from the shopkeeper?

Solution:

Cost of book = ₹35.65

Money paid by him to the shopkeeper = ₹50

∴ Money got back by him

$$= ₹50 - ₹35.65$$

$$= ₹50.00 - ₹35.65$$

$$= ₹14.35$$

$$\begin{array}{r} 50.00 \\ - 35.65 \\ \hline 14.35 \end{array}$$

Ex 8.6 Class 6 Maths Question 4.

Rani had ₹18.50. She bought one ice-cream for ₹11.75. How much money does she have now?

Solution:

Money Rani had ₹18.50

She bought ice-cream for ₹11.75

∴ Money left with Rani = ₹ 18.50 – ₹11.75 = ₹6.75

$$\begin{array}{r} 7 \quad 14 \quad 10 \\ 18.50 \\ - 11.75 \\ \hline 6.75 \end{array}$$

Ex 8.6 Class 6 Maths Question 5.

Tina had 20 m 5 cm long cloth. She cuts 4 m 50 cm length of cloth from this for making a curtain. How much cloth is left with her?

Solution:

Length of cloth had by Tina = 20 m 5 cm = 20.05 m

Length of cloth cut by her = 4 m 50 cm

= 4.50 m

∴ Length of cloth left with her = 20.05 m - 4.50 m

= 15.55 m

$$\begin{array}{r} 1 \quad 9 \quad 10 \\ 20.05 \\ - 4.50 \\ \hline 15.55 \end{array}$$

Ex 8.6 Class 6 Maths Question 6.

Namita travels 20 km 50 m every day. Out of this she travels 10 km 200 m by bus and the rest by auto. How much distance does she travel by auto?

Solution:

Distance travelled by Namita daily = 20 km 50 m or 20.050 km

Distance travelled by her by bus = 10 km 200 m or 10.200 km

∴ Distance travelled by her by auto = (20.050 – 10.200) km = 9.850 km

$$\begin{array}{r} 1 \quad 9 \quad 10 \\ 20.050 \\ - 10.200 \\ \hline 9.850 \end{array}$$

Ex 8.6 Class 6 Maths Question 7.

Aakash bought vegetables weighing 10 kg. Out of this, 3 kg 500 g is onions, 2 kg 75 g is tomatoes and the rest is potatoes. What is the weight of the potatoes?

Solution:

Weight of vegetables bought by Aakash = 10 kg

Weight of onions bought by him = 3 kg 500 g

= 3.500 kg

and weight of tomatoes bought by him = 2 kg 75 g = 2.075 kg

∴ Weight of potatoes = Weight of vegetable – (weight of onions + weight of tomatoes)

= 10.000 – (3.500 + 2.075)

= 10.000 – 5.575 = 4.425 kg

Exercise 8.6

Question 1:

Subtract:

- (a) Rs 18.25 from Rs 20.75
- (b) 202.54 m from 250 m
- (c) Rs 5.36 from Rs 8.40
- (d) 2.051 km from 5.206 km
- (e) 0.314 kg from 2.107 kg

Answer:

(a) Rs 20.75 – Rs 18.25

$$\begin{array}{r} 20.75 \\ -18.25 \\ \hline 2.50 \end{array}$$

(b) 250 m – 202.54 m

$$\begin{array}{r} 250.00 \\ -202.54 \\ \hline 47.46 \end{array}$$

(c) Rs 8.40 – Rs 5.36

$$\begin{array}{r} 8.40 \\ -5.36 \\ \hline 3.04 \end{array}$$

(b)

$$\begin{array}{r} 21.05 \\ -15.27 \\ \hline 5.78 \end{array}$$

(c)

$$\begin{array}{r} 18.50 \\ -6.79 \\ \hline 11.71 \end{array}$$

(d)

$$\begin{array}{r} 11.600 \\ -9.847 \\ \hline 1.753 \end{array}$$

Question 3:

Raju bought a book for Rs 35.65. He gave Rs 50 to the shopkeeper. How much money did he get back from the shopkeeper?

Answer:

Money given to shopkeeper = Rs 50.00

Cost of book = Rs 35.65

Money that Raju will get back will be the difference of these two.

Hence, money that Raju will get back is

$$\begin{array}{r} 50.00 \\ -35.65 \\ \hline 14.35 \end{array}$$

Therefore, he will get back Rs 14.35.

Question 4:

Rani had Rs 18.50. She bought one ice-cream for Rs 11.75. How much money does she have now?

Answer:

Money with Rani = Rs 18.50

Money spent for an ice cream = Rs 11.75

The money left with Rani will be the difference of these two.

Hence, the money left is

$$\begin{array}{r} 18.50 \\ -11.75 \\ \hline 6.75 \end{array}$$

Question 5:

Tina had 20 m 5 cm long cloth. She cuts 4 m 50 cm length of cloth from this for making a curtain. How much cloth is left with her?

Answer:

Length of cloth = 20 m 5 cm = 20.05 m

Length of cloth cut so as to make a curtain = 4 m 50 cm = 4.50 m

The length of the cloth left with her will be the difference of these two.

Hence, the length of the cloth left with her is

$$\begin{array}{r} 20.05 \\ - 4.50 \\ \hline 15.55 \end{array}$$

Therefore, 15.55 m cloth will be remaining.

Question 6:

Namita travels 20 km 50 m every day. Out of this, she travels 10 km 200 m by bus and the rest by auto. How much distance does she travel by auto?

Answer:

Total distance travelled by Namita = 20 km 50 m = 20.050 km

Distance travelled by bus = 10 km 200 m = 10.200 km

Distance travelled by auto = Total distance travelled – Distance travelled by bus

Hence, the distance travelled by auto is

$$\begin{array}{r} 20.050 \\ -10.200 \\ \hline 9.850 \end{array}$$

Question 7:

Aakash bought vegetables weighing 10 kg. Out of this, 3 kg 500 g is onions, 2 kg 75 g is tomatoes and the rest is potatoes. What is the weight of the potatoes?

Answer:

Total weight of vegetables bought = 10.000 kg

Weight of onions = 3 kg 500 g = 3.500 kg

Weight of tomatoes = 2 kg 75 g = 2.075 kg

Weight of potatoes = Total weight of vegetables bought – (Weight of onions + Weight of tomatoes)

= 10.000 – (3.500 + 2.075)

$$\begin{array}{r} 3.500 \\ +2.075 \\ \hline 5.575 \end{array}$$

10.000 Hence, the weight of the potatoes was 4.425 kg.

$$\begin{array}{r} 10.000 \\ -5.575 \\ \hline 4.425 \end{array}$$