

EXERCISE 7.1

1. Write the following decimals in the place value table:

- (i) 52.5
- (ii) 12.57
- (iii) 15.05
- (iv) 74.059
- (v) 0.503

Solution:

	Decimals	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
(i)	52.5			5	2	5		
(ii)	12.57			1	2	5	7	
(iii)	15.05			1	5	0	5	
(iv)	74.059			7	4	0	5	9
(v)	0.503				0	5	0	3

2. Write the decimals shown in the following place value table:

	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
(i)		3	0	7	1	2	
(ii)	9	5	4	3	0	2	5
(iii)			1	2	5	0	3

Solution:

- (i) We can write it as 307.12
- (ii) We can write it as 9543.025
- (iii) We can write it as 12.503

3. Write each of the following decimals in words:

- (i) 175.04
- (ii) 0.21
- (iii) 9.004
- (iv) 0.459

Solution:

- (i) 175.04 can be written as one hundred seventy five and four hundredths.
- (ii) 0.21 can be written as zero and twenty one hundredths.
- (iii) 9.004 can be written as nine and four thousandths.
- (iv) 0.459 can be written as zero and four hundred fifty nine thousandths.

4. Write each of the following as decimals:

- (i) $65 + \frac{2}{10} + \frac{7}{100}$
(ii) $45 + \frac{9}{100}$
(iii) $88 + \frac{5}{10} + \frac{2}{1000}$
(iv) $\frac{3}{10} + \frac{7}{1000}$

Solution:

(i) $65 + \frac{2}{10} + \frac{7}{100}$

In the above question

We know that

6 tens, 5 ones, 2 tenths and 7 hundredths

Hence, the decimal number is 65.27.

(ii) $45 + \frac{9}{100}$

In the above question

We know that

4 tens, 5 ones and 9 hundredths

Hence, the decimal number is 45.09.

(iii) $88 + \frac{5}{10} + \frac{2}{1000}$

In the above question

We know that

8 tens, 8 ones, 5 tenths and 2 thousandths

Hence, the decimal number is 88.502.

(iv) $\frac{3}{10} + \frac{7}{1000}$

In the above question

We know that

3 tenths and 7 thousandths

Hence, the decimal number is 0.307.

5. Write each of the following as decimals:

- (i) Five and four tenths
(ii) Twelve and four hundredths
(iii) Nine and Seven hundred five thousandths
(iv) Zero point five two six
(v) Forty seven and six thousandths
(vi) Eight thousandths
(vii) Nineteen and nineteen hundredths.

Solution:

(i) Five and four tenths

It can be written as

$$5 + \frac{4}{10} = 5.4$$

(ii) Twelve and four hundredths

It can be written as

$$12 + \frac{4}{100} = 12.04$$

(iii) Nine and Seven hundred five thousandths

It can be written as

$$9 + 705/1000 = 9.705$$

(iv) Zero point five two six

It can be written as

$$0.526$$

(v) Forty seven and six thousandths

It can be written as

$$47 + 6/1000 = 47.006$$

(vi) Eight thousandths

It can be written as

$$8/1000 = 0.008$$

(vii) Nineteen and nineteen hundredths

It can be written as

$$19 + 19/100 = 19.19$$



EXERCISE 7.2

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1. Write each of the following as decimals:

- (i) Three tenths
- (ii) Two ones and five tenths
- (iii) Thirty and one tenths
- (iv) Twenty two and six tenths
- (v) One hundred, two ones and three tenths

Solution:

(i) Three tenths

It can be written as

$$3/10 = 0.3$$

(ii) Two ones and five tenths

It can be written as

$$2 + 5/10 = 2.5$$

(iii) Thirty and one tenths

It can be written as

$$30 + 1/10 = 30.1$$

(iv) Twenty two and six tenths

It can be written as

$$22 + 6/10 = 22.6$$

(v) One hundred, two ones and three tenths

It can be written as

$$100 + 2 + 3/10 = 102.3$$

2. Write each of the following as decimals:

- (i) $30 + 6 + 2/10$
- (ii) $700 + 5 + 7/10$
- (iii) $200 + 60 + 5 + 1/10$
- (iv) $200 + 70 + 9 + 5/10$

Solution:(i) $30 + 6 + 2/10$

In the above question

We know that

3 tens, 6 ones and 2 tenths

Hence, the decimal is 36.2.

(ii) $700 + 5 + 7/10$

In the above question

We know that

7 hundreds, 5 ones and 7 tenths

Hence, the decimal is 705.7.

(iii) $200 + 60 + 5 + 1/10$

In the above question
We know that
2 hundreds, 6 tens, 5 ones and 1 tenths.
Hence, the decimal is 265.1.

(iv) $200 + 70 + 9 + 5/10$
In the above question
We know that
2 hundreds, 7 tens, 9 ones and 5 tenths
Hence, the decimal is 279.5.

3. Write each of the following as decimals:

(i) $22/10$

(ii) $3/2$

(iii) $2/5$

Solution:

(i) $22/10$
Here the denominator is ten
Hence, the decimal is 2.2

(ii) $3/2$
Multiplying the fraction by 5
We get
 $(3/2) \times (5/5) = 15/10 = 1.5$

(iii) $2/5$
Multiplying the fraction by 2
We get
 $(2/5) \times (2/2) = 4/10 = 0.4$

4. Write each of the following as decimals:

(i) $40 \frac{2}{5}$

(ii) $39 \frac{2}{10}$

(iii) $4 \frac{3}{5}$

(iv) $25 \frac{1}{2}$

Solution:

(i) $40 \frac{2}{5}$
In order to write in decimal we should make the denominator 10
So we get
 $40 + [(2/5) \times (2/2)] = 40 + 4/10 = 40.4$

(ii) $39 \frac{2}{10}$
It can be written as
 $39 + 2/10 = 39 + 0.2 = 39.2$

(iii) $4 \frac{3}{5}$
In order to write in decimal we should make the denominator 10
So we get

$$4 + [(3/5) \times (2/2)] = 4 + 6/10 = 4.6$$

(iv) $25 \frac{1}{2}$

In order to write in decimal we should make the denominator 10

So we get

$$25 + [(1/2) \times (5/5)] = 25 + 5/10 = 25.5$$

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

(i) 3.8

(ii) 21.2

(iii) 6.4

(iv) 1.0

Solution:

(i) 3.8

It can be written as

$$= 3 + 8 \text{ tenths}$$

On further calculation

$$= 3 + 8/10$$

We get

$$= 3(10/10) + 8/10$$

By further simplification

$$= 30/10 + 8/10$$

$$= 38/10$$

So we get

$$= 19/5$$

(ii) 21.2

It can be written as

$$= 21 + 2 \text{ tenths}$$

On further calculation

$$= 21 + 2/10$$

We get

$$= 21(10/10) + 2/10$$

By further simplification

$$= 210/10 + 2/10$$

$$= 212/10$$

So we get

$$= 106/5$$

(iii) 6.4

It can be written as

$$= 6 + 4 \text{ tenths}$$

On further calculation

$$= 6 + 4/10$$

We get

$$= 6(10/10) + 4/10$$

By further simplification

$$= 60/10 + 4/10$$

$$= 64/10$$

So we get
= $\frac{32}{5}$

(iv) 1.0
Here, the number after decimal is zero so the fraction is 1.

6. Represent the following decimal numbers on the number line:

- (i) 0.2
- (ii) 1.9
- (iii) 1.1
- (iv) 2.5

Solution:

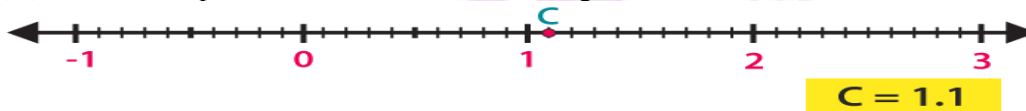
(i) 0.2 can be represented on the number line as given below:



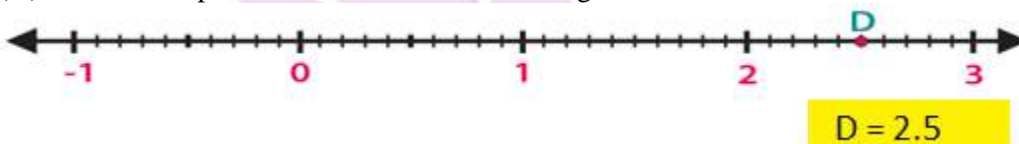
(ii) 1.9 can be represented on the number line as given below:



(iii) 1.1 can be represented on the number line as given below:



(iv) 2.5 can be represented on the number line as given below:



7. Between which two whole numbers on the number line are the given numbers? Which one is nearer the number?

- (i) 0.8
- (ii) 5.1
- (iii) 2.6
- (iv) 6.4
- (v) 9.0
- (vi) 4.9

Solution:

(i) We know that
0.8 is 8 units from 0 and 2 units from 1
Hence, it is nearer to 1.

(ii) We know that
5.1 is 1 unit from 5 and 9 units from 6
Hence, it is nearer to 5.

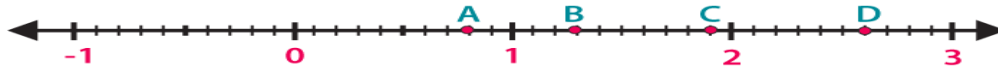
(iii) We know that
2.6 is 6 units from 2 and 4 units from 3
Hence, it is nearer to 3.

(iv) We know that
6.4 is 4 units from 6 and 6 units from 7
Hence, it is nearer to 6.

(v) We know that
9.0 is a whole number
Hence, it is nearer to 9.

(vi) We know that
4.9 is 9 units from 4 and 1 unit from 5
Hence, it is nearer to 5.

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



Solution:

A – We know that A is at eighth place between the numbers 0 and 1
Hence, the decimal is 0.8

B – We know that B is at third place between the numbers 1 and 2
Hence, the decimal is 1.3

C – We know that C is at ninth place between the numbers 1 and 2
Hence, the decimal is 1.9

D – We know that D is at sixth place between the numbers 2 and 3
Hence, the decimal is 2.6

EXERCISE 7.3

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1. Write each of the following as decimals:**(i) Five hundred twenty five and forty hundredths.****(ii) Twelve and thirty five thousandths****(iii) Fifteen and seventeen thousandths****(iv) Eighty eight and forty eight hundredths****Solution:**

(i) Five hundred twenty five and forty hundredths

It can be written as

$$525 + 40/100 = 525.40$$

(ii) Twelve and thirty five thousandths

It can be written as

$$12 + 35/1000 = 12.035$$

(iii) Fifteen and seventeen thousandths

It can be written as

$$15 + 17/1000 = 15.017$$

(iv) Eighty eight and forty eight hundredths

It can be written as

$$88 + 48/100 = 88.48$$

2. Write each of the following as decimals:**(i) $137 + 5/100$** **(ii) $20 + 9 + 4/100$** **Solution:**(i) $137 + 5/100$

We know that

1 hundred, 3 tens, 7 ones and 5 hundredths

Hence, the decimal is 137.05.

(ii) $20 + 9 + 4/100$

We know that

2 tens, 9 ones and 4 hundredths

Hence, the decimal is 29.04.

3. Write each of the following as decimals:**(i) $8/100$** **(ii) $300/1000$** **(iii) $18/1000$** **(iv) $208/100$** **(v) $888/1000$** **Solution:**(i) $8/100$ We know that $8/100 = 0.08$

Hence, the decimal is 0.08.

(ii) $300/1000$

We know that $300/1000 = 3/10$

So 3 tenths

Hence, the decimal is 0.3.

(iii) $18/1000$

We know that $18/1000 = 0.018$

Hence, the decimal is 0.018.

(iv) $208/100$

We know that $208/100 = 200/100 + 8/100$

So 2 and 8 hundredths

Hence, the decimal is 2.08.

(v) $888/1000$

We know that $888/1000 = 800/1000 + 80/1000 + 8/1000$

We get

$$= 8/10 + 8/100 + 8/1000$$

So 8 tenths, 8 hundredths and 8 thousandths

Hence, the decimal is 0.888.

4. Write each of the following as decimals:

(i) $12 \frac{1}{4}$

(ii) $7 \frac{1}{8}$

(iii) $5 \frac{1}{20}$

Solution:

(i) $12 \frac{1}{4}$

It can be written as

$$= 12 + \frac{1}{4}$$

In order to make denominator 100

Multiply and divide by 25

We get

$$= 12 + \left[\frac{1}{4} \times \left(\frac{25}{25}\right)\right]$$

On further calculation

$$= 12 + \frac{25}{100}$$

So we get

$$= 12.25$$

(ii) $7 \frac{1}{8}$

It can be written as

$$= 7 + \frac{1}{8}$$

In order to make denominator 1000

Multiply and divide by 125

We get

$$= 7 + \left[\frac{1}{8} \times \left(\frac{125}{125}\right)\right]$$

On further calculation

$$= 7 + \frac{125}{1000}$$

So we get
 $= 7.125$

(iii) $5 \frac{1}{20}$

It can be written as

$$= 5 + \frac{1}{20}$$

In order to make denominator 100

Multiply and divide by 5

We get

$$= 5 + \left[\frac{1}{20} \times \frac{5}{5}\right]$$

On further calculation

$$= 5 + \frac{5}{100}$$

So we get

$$= 5.05$$

5. Write each of the following decimals as fractions. Reduce the fractions to lowest form:

(i) **0.04**

(ii) **2.34**

(iii) **0.342**

(iv) **1.20**

(v) **17.38**

Solution:

(i) 0.04

It can be written as

$$= 0 + 0.04$$

We get

$$= 0 + 4 \text{ hundredths}$$

On further calculation

$$= 0 + \frac{4}{100}$$

So we get

$$= \frac{1}{25}$$

(ii) 2.34

It can be written as

$$= 2 + 0.34$$

We get

$$= 2 + 34 \text{ hundredths}$$

On further calculation

$$= 2 + \frac{34}{100}$$

So we get

$$= 2 \times \frac{100}{100} + \frac{34}{100}$$

By further simplification

$$= \frac{200}{100} + \frac{34}{100}$$

By addition

$$= \frac{234}{100}$$

By division

$$= \frac{117}{50}$$

(iii) 0.342

It can be written as
 $= 0 + 0.342$
We get
 $= 0 + 342$ thousandths
On further calculation
 $= 342/1000$
So we get
 $= 171/500$

(iv) 1.20
It can be written as
 $= 1 + 0.20$
We get
 $= 1 + 20$ hundredths
On further calculation
 $= 100/100 + 20/100$
So we get
 $= 120/100$
By division
 $= 6/5$

(v) 17.38
It can be written as
 $= 17 + 0.38$
We get
 $= 17 + 38$ hundredths
On further calculation
 $= 17 + 38/100$
So we get
 $= 17 \times (100/100) + 38/100$
By further simplification
 $= 1700/100 + 38/100$
By addition
 $= 1738/100$
By division
 $= 869/50$

6. Write each of the following as decimals:

- (i) $20 + 9 + 40/10 + 1/100$
(ii) $30 + 4/10 + 8/100 + 3/1000$
(iii) $137 + 5/100$
(iv) $7/10 + 6/100 + 4/1000$
(v) $23 + 2/10 + 6/1000$
(vi) $700 + 20 + 5 + 9/100$

Solution:

(i) $20 + 9 + 40/10 + 1/100$
We know that
2 tens, 9 ones, 4 tenths and 1 hundredths
Hence, the decimal is 29.41.

(ii) $30 + \frac{4}{10} + \frac{8}{100} + \frac{3}{1000}$

We know that

3 tens, 4 tenths, 8 hundredths and 3 thousandths

Hence, the decimal is 30.483.

(iii) $137 + \frac{5}{100}$

We know that

1 hundred, 3 tens, 7 ones and 5 hundredths

Hence, the decimal is 137.05.

(iv) $\frac{7}{10} + \frac{6}{100} + \frac{4}{1000}$

We know that

7 tenths, 6 hundredths and 4 thousandths

Hence, the decimal is 0.764.

(v) $23 + \frac{2}{10} + \frac{6}{1000}$

We know that

2 tens, 3 ones, 2 tenths and 6 thousandths

Hence, the decimal is 23.206.

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

We know that

7 hundreds, 2 tens, 5 ones and 9 hundredths

Hence, the decimal is 725.09.

EXERCISE 7.4

PAGE: 7.4

1. Express the following fractions as decimals:**(i) $23/10$** **(ii) $139/100$** **(iii) $4375/1000$** **(iv) $12 \frac{1}{2}$** **(v) $75 \frac{1}{4}$** **(vi) $25 \frac{1}{8}$** **(vii) $18 \frac{3}{24}$** **(viii) $39 \frac{7}{35}$** **(ix) $15 \frac{1}{25}$** **(x) $111/250$** **Solution:****(i) $23/10$**

It can be written as

$$= 20 + 3/10$$

We get

$$= 20/10 + 3/10$$

By addition

$$= 2 + 3/10$$

So we get

$$= 2.3$$

(ii) $139/100$

It can be written as

$$= 100 + 30 + 9/100$$

We get

$$= 100/100 + 30/100 + 9/100$$

By addition

$$= 1 + 3/10 + 9/100$$

So we get

$$= 1.39$$

(iii) $4375/1000$

It can be written as

$$= 4000 + 300 + 70 + 5/1000$$

We get

$$= 4000/1000 + 300/1000 + 70/1000 + 5/1000$$

By addition

$$= 4 + 3/10 + 7/100 + 5/1000$$

So we get

$$= 4.375$$

(iv) $12 \frac{1}{2}$

It can be written as

$$= 12 + 1/2$$

Multiplying and dividing by 5 to get denominator as 10

$$= 12 + [(1/2) \times (5/5)]$$

On further calculation

$$= 12 + 5/10$$

So we get

$$= 12.5$$

(v) $75 \frac{1}{4}$

It can be written as

$$= 75 + \frac{1}{4}$$

Multiplying and dividing by 25 to get 100 as denominator

$$= 75 + [(1/4) \times (25/25)]$$

On further calculation

$$= 75 + 25/100$$

By addition

$$= 75.25$$

(vi) $25 \frac{1}{8}$

It can be written as

$$= 25 + \frac{1}{8}$$

Multiplying and dividing by 125 to get 1000 as denominator

$$= 25 + [(1/8) \times (125/125)]$$

On further calculation

$$= 25 + 125/1000$$

By addition

$$= 25.125$$

(vii) $18 \frac{3}{24}$

It can be written as

$$= 18 + \frac{3}{24}$$

We get

$$= 18 + \frac{1}{8}$$

Multiplying and dividing by 125 to get 1000 as denominator

$$= 18 + [(1/8) \times (125/125)]$$

On further calculation

$$= 18 + 125/1000$$

By addition

$$= 18.125$$

(viii) $39 \frac{7}{35}$

It can be written as

$$= 39 + \frac{7}{35}$$

We get

$$= 39 + \frac{1}{5}$$

Multiplying and dividing by 2 to get 10 as denominator

$$= 39 + [(1/5) \times (2/2)]$$

On further calculation

$$= 39 + 2/10$$

By addition

$$= 39.2$$

(ix) $15 \frac{1}{25}$

It can be written as

$$= 15 + \frac{1}{25}$$

Multiplying and dividing by 4 to get 100 as denominator

$$= 15 + \left[\left(\frac{1}{25} \right) \times \left(\frac{4}{4} \right) \right]$$

On further calculation

$$= 15 + \frac{4}{100}$$

By addition

$$= 15.04$$

(x) $111 \frac{1}{250}$

It can be written as

$$= 111 \times \left[\left(\frac{1}{250} \right) \times \left(\frac{4}{4} \right) \right]$$

On further calculation

$$= \frac{444}{1000}$$

By division

$$= 0.444$$

2. Express the following decimals as fractions in the lowest form:

(i) 0.5

(ii) 2.5

(iii) 0.60

(iv) 0.18

(v) 5.25

(vi) 7.125

(vii) 15.004

(viii) 20.375

(ix) 600.75

(x) 59.48

Solution:

(i) 0.5

It can be written as

$$= \frac{5}{10}$$

By division

$$= \frac{1}{2}$$

(ii) 2.5

It can be written as

$$= \frac{25}{10}$$

By division

$$= \frac{5}{2}$$

(iii) 0.60

It can be written as

$$= \frac{60}{100}$$

By division

$$= \frac{3}{5}$$

(iv) 0.18

It can be written as
 $= 18/100$
By division
 $= 9/50$

(v) 5.25
It can be written as
 $= 525/100$
By division
 $= 21/4$

(vi) 7.125
It can be written as
 $= 7125/1000$
By division
 $= 57/8$

(vii) 15.004
It can be written as
 $= 15004/1000$
By division
 $= 3751/250$

(viii) 20.375
It can be written as
 $= 20375/1000$
By division
 $= 163/8$

(ix) 600.75
It can be written as
 $= 60075/100$
By division
 $= 2403/4$

(x) 59.48
It can be written as
 $= 5948/100$
By division
 $= 1487/25$

EXERCISE 7.5

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1. Fill in the blanks by using > or < to complete the following:

- (i) 25.35 8.47
(ii) 20.695 20.93
(iii) 0.39 0.72
(iv) 0.109 0.83
(v) 0.236 0.201
(vi) 0.93 0.99

Solution:

(i) 25.35 8.47

We know that the whole numbers $25 > 8$
Hence, $25.35 > 8.47$.

(ii) 20.695 20.93

We know that both the whole numbers are equal
So by checking the tenth parts we know that $9 > 6$
Hence, $20.695 < 20.93$.

(iii) 0.39 0.72

We know that both the whole numbers are 0
So by checking the tenth parts we know that $7 > 3$
Hence, $0.39 < 0.72$.

(iv) 0.109 0.83

We know that both the whole numbers are 0
So by checking the tenth parts we know that $1 < 8$
Hence, $0.109 < 0.83$.

(v) 0.236 0.201

We know that both the whole numbers are 0
So by checking the hundredth parts we know that $3 > 0$
Hence, $0.236 > 0.201$.

(vi) 0.93 0.99

We know that both the whole numbers are 0
So by checking the hundredth parts we know that $3 < 9$
Hence, $0.93 < 0.99$.

2. Which is greater? Give reason for your answer?

- (i) 1.008 or 1.800
(ii) 3.3 or 3.300
(iii) 5.64 or 5.603
(iv) 1.5 or 1.50
(v) 1.431 or 1.439
(vi) 0.5 or 0.05

Solution:

(i) 1.008 or 1.800

We know that the whole numbers are equal
So by comparing tenths place we know that $0 < 8$
Hence, $1.008 < 1.800$.

(ii) 3.3 or 3.300
We know that the whole numbers and tenths place are equal
Hence, $3.3 = 3.300$.

(iii) 5.64 or 5.603
We know that the whole numbers are equal
So by comparing the hundredths place we know that $4 > 0$
Hence, $5.64 > 5.603$.

(iv) 1.5 or 1.50
We know that the whole numbers and tenths place are equal
Hence, $1.5 = 1.50$.

(v) 1.431 or 1.439
We know that the whole numbers are equal
So by comparing thousandths place we know that $1 < 9$
Hence, $1.431 < 1.439$.

(vi) 0.5 or 0.05
We know that the whole numbers are equal
So by comparing tenths place we know that $5 > 0$
Hence, $0.5 > 0.05$.

EXERCISE 7.6

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1. Express as Rupees (Rs) using decimals:**(i) 15 paisa****(ii) 5 paisa****(iii) 350 paisa****(iv) 2 rupees 60 paisa****Solution:**

(i) 15 paisa

We know that 100 paisa = Rs 1

So we get 1 paisa = Rs $\frac{1}{100}$

It can be written as

 $15 \text{ paisa} = \frac{15}{100}$

We get

 $15 \text{ paisa} = \text{Rs } 0.15$

(ii) 5 paisa

We know that 100 paisa = Rs 1

So we get 1 paisa = Rs $\frac{1}{100}$

It can be written as

 $5 \text{ paisa} = \frac{5}{100}$

We get

 $5 \text{ paisa} = \text{Rs } 0.05$

(iii) 350 paisa

We know that 100 paisa = Rs 1

So we get 1 paisa = Rs $\frac{1}{100}$

It can be written as

 $350 \text{ paisa} = \frac{350}{100}$

We get

 $350 \text{ paisa} = \text{Rs } 3.50$

(iv) 2 rupees 60 paisa

We know that 100 paisa = Rs 1

So we get 1 paisa = Rs $\frac{1}{100}$

It can be written as

 $2 \text{ rupees } 60 \text{ paisa} = 2 + \frac{60}{100}$

We get

 $2 \text{ rupees } 60 \text{ paisa} = \text{Rs } 2.60$ **2. Express as metres (m) using decimals:****(i) 15 cm****(ii) 8 cm****(iii) 135 cm****(iv) 3 m 65 cm****Solution:**

(i) 15 cm

We know that 100 cm = 1 m

So we get $1 \text{ cm} = 1/100 \text{ m}$

It can be written as

$$15 \text{ cm} = 15 (1/100)$$

We get

$$15 \text{ cm} = 0.15 \text{ m}$$

(ii) 8 cm

We know that $100 \text{ cm} = 1 \text{ m}$

So we get $1 \text{ cm} = 1/100 \text{ m}$

It can be written as

$$8 \text{ cm} = 8 (1/100)$$

We get

$$8 \text{ cm} = 0.08 \text{ m}$$

(iii) 135 cm

We know that $100 \text{ cm} = 1 \text{ m}$

So we get $1 \text{ cm} = 1/100 \text{ m}$

It can be written as

$$135 \text{ cm} = 135 (1/100)$$

We get

$$135 \text{ cm} = 1.35 \text{ m}$$

(iv) 3 m 65 cm

We know that $100 \text{ cm} = 1 \text{ m}$

So we get $1 \text{ cm} = 1/100 \text{ m}$

It can be written as

$$3 \text{ m } 65 \text{ cm} = 3 + 65 (1/100)$$

We get

$$3 \text{ m } 65 \text{ cm} = 3.65 \text{ m}$$

3. Express as centimeter (cm) using decimals:

(i) 5 mm

(ii) 60 mm

(iii) 175 mm

(iv) 4 cm 5 mm

Solution:

(i) 5 mm

We know that $10 \text{ mm} = 1 \text{ cm}$

So we get $1 \text{ mm} = 1/10 \text{ cm}$

It can be written as

$$5 \text{ mm} = 5/10$$

We get

$$5 \text{ mm} = 0.5 \text{ cm}$$

(ii) 60 mm

We know that $10 \text{ mm} = 1 \text{ cm}$

So we get $1 \text{ mm} = 1/10 \text{ cm}$

It can be written as

$$60 \text{ mm} = 60/10$$

We get
 $60 \text{ mm} = 6 \text{ cm}$

(iii) 175 mm
We know that $10 \text{ mm} = 1 \text{ cm}$
So we get $1 \text{ mm} = 1/10 \text{ cm}$
It can be written as
 $175 \text{ mm} = 175/10$
We get
 $175 \text{ mm} = 17.5 \text{ cm}$

(iv) 4 cm 5 mm
We know that $10 \text{ mm} = 1 \text{ cm}$
So we get $1 \text{ mm} = 1/10 \text{ cm}$
It can be written as
 $4 \text{ cm } 5 \text{ mm} = 4 + 5/10$
We get
 $4 \text{ cm } 5 \text{ mm} = 4.5 \text{ cm}$

4. Express as kilometer (km) using decimals:

- (i) 5 m
- (ii) 55 m
- (iii) 555 m
- (iv) 5555 m
- (v) 15 km 35 m

Solution:

(i) 5 m
We know that $1000 \text{ m} = 1 \text{ km}$
So we get $1 \text{ m} = 1/1000 \text{ km}$
It can be written as
 $5 \text{ m} = 5/1000 \text{ km}$
We get
 $5 \text{ m} = 0.005 \text{ km}$

(ii) 55 m
We know that $1000 \text{ m} = 1 \text{ km}$
So we get $1 \text{ m} = 1/1000 \text{ km}$
It can be written as
 $55 \text{ m} = 55/1000 \text{ km}$
We get
 $55 \text{ m} = 0.055 \text{ km}$

(iii) 555 m
We know that $1000 \text{ m} = 1 \text{ km}$
So we get $1 \text{ m} = 1/1000 \text{ km}$
It can be written as
 $555 \text{ m} = 555/1000 \text{ km}$
We get
 $555 \text{ m} = 0.555 \text{ km}$

(iv) 5555 m

We know that $1000 \text{ m} = 1 \text{ km}$

So we get $1 \text{ m} = 1/1000 \text{ km}$

It can be written as

$$5555 \text{ m} = 5555/1000 \text{ km}$$

We get

$$5555 \text{ m} = 5.555 \text{ km}$$

(v) 15 km 35 m

We know that $1000 \text{ m} = 1 \text{ km}$

So we get $1 \text{ m} = 1/1000 \text{ km}$

It can be written as

$$15 \text{ km } 35 \text{ m} = 15 + 35/1000 \text{ km}$$

We get

$$15 \text{ km } 35 \text{ m} = 15.035 \text{ km}$$

5. Express as kilogram (kg) using decimals:

(i) 8 g

(ii) 150 g

(iii) 2750 g

(iv) 5 kg 750 g

(v) 36 kg 50 g

Solution:

(i) 8 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as

$$8 \text{ g} = 8/1000$$

We get

$$8 \text{ g} = 0.008 \text{ kg}$$

(ii) 150 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as

$$150 \text{ g} = 150/1000$$

We get

$$150 \text{ g} = 0.150 \text{ kg}$$

(iii) 2750 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as

$$2750 \text{ g} = 2750/1000$$

We get

$$2750 \text{ g} = 2.750 \text{ kg}$$

(iv) 5 kg 750 g

We know that $1000 \text{ g} = 1 \text{ kg}$

So we get $1 \text{ g} = 1/1000 \text{ kg}$
It can be written as
 $5 \text{ kg } 750 \text{ g} = 5 + 750/1000$
We get
 $5 \text{ kg } 750 \text{ g} = 5.750 \text{ kg}$

(v) $36 \text{ kg } 50 \text{ g}$
We know that $1000 \text{ g} = 1 \text{ kg}$
So we get $1 \text{ g} = 1/1000 \text{ kg}$
It can be written as
 $36 \text{ kg } 50 \text{ g} = 36 + 50/1000$
We get
 $36 \text{ kg } 50 \text{ g} = 36.050 \text{ kg}$

6. Express each of the following without using decimals:

(i) **Rs 5.25**

(ii) **8.354 kg**

(iii) **3.5 cm**

(iv) **3.05 km**

(v) **7.54 m**

(vi) **15.005 kg**

(vii) **12.05 m**

(viii) **0.2 cm**

Solution:

(i) **Rs 5.25**

We know that $100 \text{ paisa} = 1 \text{ rupee}$

So we get $1 \text{ paisa} = 1/100 \text{ rupee}$

It can be written as

$$\text{Rs } 5.25 = 5 + 25/100$$

We get

$$\text{Rs } 5.25 = 5 + 1/4$$

On further calculation

$$\text{Rs } 5.25 = \text{Rs } 21/4$$

(ii) **8.354 kg**

We know that $1000 \text{ g} = 1 \text{ kg}$

So we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as

$$8.354 \text{ kg} = 8354/1000 \text{ kg}$$

(iii) **3.5 cm**

We know that $10 \text{ mm} = 1 \text{ cm}$

So we get $1 \text{ mm} = 1/10 \text{ cm}$

It can be written as

$$3.5 \text{ cm} = 3 + 5/10$$

On further calculation

$$3.5 \text{ cm} = 3 + 1/2$$

We get

$$3.5 \text{ cm} = 7/2 \text{ cm}$$

(iv) 3.05 km

We know that $1000 \text{ m} = 1 \text{ km}$

So we get $1 \text{ m} = 1/1000 \text{ km}$

It can be written as

$$3.05 \text{ km} = 3 + 5/100$$

Multiplying and dividing by 10

$$3.05 \text{ km} = 3 + 50/1000$$

On further calculation

$$3.05 \text{ km} = 3 + 1/20$$

We get

$$3.05 \text{ km} = 61/20 \text{ km}$$

(v) 7.54 m

We know that $100 \text{ cm} = 1 \text{ m}$

So we get $1 \text{ cm} = 1/100 \text{ m}$

It can be written as

$$7.54 \text{ m} = 7 + 54/100$$

On further calculation

$$7.54 \text{ m} = 7 + 27/50$$

We get

$$7.54 \text{ m} = 377/50 \text{ m}$$

(vi) 15.005 kg

We know that $1 \text{ kg} = 1000 \text{ g}$

So we get $1 \text{ g} = 1/1000 \text{ kg}$

It can be written as

$$15.005 \text{ kg} = 15 + 5/1000$$

On further calculation

$$15.005 \text{ kg} = 15 + 1/200$$

We get

$$15.005 \text{ kg} = 3001/200 \text{ kg}$$

(vii) 12.05 m

We know that $1 \text{ m} = 100 \text{ cm}$

So we get $1 \text{ cm} = 1/100 \text{ m}$

It can be written as

$$12.05 \text{ m} = 12 + 5/100$$

On further calculation

$$12.05 \text{ m} = 12 + 1/20$$

We get

$$12.05 \text{ m} = 241/20 \text{ m}$$

(viii) 0.2 cm

We know that $10 \text{ mm} = 1 \text{ cm}$

So we get $1 \text{ mm} = 1/10 \text{ cm}$

It can be written as

$$0.2 \text{ cm} = 0 + 2/10$$

On further calculation

$$0.2 \text{ cm} = 1/5 \text{ cm}$$

EXERCISE 7.7

PAGE: 7.26

1. Choose the decimal (s) from the brackets which is (are) not equivalent to the given decimals:

- (i) 0.8 (0.80, 0.85, 0.800, 0.08)
(ii) 25.1 (25.01, 25.10, 25.100, 25.001)
(iii) 45.05 (45.050, 45.005, 45.500, 45.0500)

Solution:

(i) 0.8 (0.80, 0.85, 0.800, 0.08)
We know that 0.85 and 0.08 are not equivalent to the given decimal
For 0.85, 5 is in the hundredth place and for 0.8 the hundredth value is 0.
For 0.08, 0 is in the tenth place and for 0.8 the tenth value is 8.

(ii) 25.1 (25.01, 25.10, 25.100, 25.001)
For 25.01, 0 is in the tenth place and for 25.001 the tenth value is 0.

(iii) 45.05 (45.050, 45.005, 45.500, 45.0500)
For 45.005, 0 is in the hundredth place and for 45.05 the hundredth value is 5
For 45.500, 5 is in the tenth place and for 45.05 the tenth value is 0.

2. Which of the following are like decimals:

- (i) 0.34, 0.07, 5.35, 24.70
(ii) 45.05, 4.505, 20.55, 20.5
(iii) 8.80, 17.08, 8.94, 0.27
(iv) 4.50, 16.80, 0.700, 7.08

Solution:

(i) 0.34, 0.07, 5.35, 24.70
The given values are like decimals because equal number of digits are present after the decimal point.

(ii) 45.05, 4.505, 20.55, 20.5
The given values are unlike decimals because different number of digits are present after the decimal point.

(iii) 8.80, 17.08, 8.94, 0.27
The given values are like decimals because equal number of digits are present after the decimal point.

(iv) 4.50, 16.80, 0.700, 7.08
The given values are unlike decimals because different number of digits are present after the decimal point.

3. Which of the following statements are correct?

- (i) 8.05 and 7.95 are like decimals.
(ii) 0.95, 0.306, 7.10 are unlike decimals.
(iii) 3.70 and 3.7 are like decimals.
(iv) 13.59, 1.359, 135.9 are like decimals.
(v) 5.60, 3.04, 0.45 are like decimals.

Solution:

(i) Correct because the two decimals have same number of digits present after decimal point.

(ii) Correct because the three decimals have different number of digits present after decimal point.

- (iii) Incorrect because the two decimals have different number of digits present after decimal point.
- (iv) Incorrect because the three decimals have different number of digits present after decimal point.
- (v) Correct because the three decimals have same number of digits present after decimal point.

4. Convert each of the following sets of unlike decimals to like decimal:

(i) 7.8, 7.85

(ii) 2.02, 3.2

(iii) 0.6, 5.8, 12.765

(iv) 5.296, 5.2, 5.29

(v) 4.3294, 43.29, 432.94

Solution:

(i) 7.8, 7.85

In the given values we know that 7.85 contains 2 digits after decimal point so by changing 7.8 as 7.80
Hence, 7.80 and 7.85 are like decimals.

(ii) 2.02, 3.2

In the given values we know that 2.02 contains 2 digits after decimal point so by changing 3.2 as 3.20
Hence, 2.02 and 3.20 are like decimals.

(iii) 0.6, 5.8, 12.765

In the given values we know that 12.765 contains 3 digits after decimal point so by changing 0.6 as 0.600 and 5.8 as 5.800
Hence, 0.600, 5.800 and 12.765 are like decimals.

(iv) 5.296, 5.2, 5.29

In the given values we know that 5.296 contains 3 digits after decimal point so by changing 5.2 as 5.200 and 5.29 as 5.290
Hence, 5.296, 5.200 and 5.290 are like decimals.

(v) 4.3294, 43.29, 432.94

In the given values we know that 4.3294 contains 4 digits after decimal point so by changing 43.29 as 43.2900 and 432.94 as 432.9400
Hence, 4.3294, 43.2900 and 432.9400 are like decimals.

EXERCISE 7.8

PAGE: 7.28

1. Find the sum in each of the following:

(i)	102.36	(ii)	0.06	(iii)	312.8
	$+7.054$		$+4.108$		$+290.02$
	$+0.8$		$+91.5$		$+128.457$
<hr/>					
(iv)	113.285	(v)	3.42	(vi)	18.003
	$+6.7$		$+264.08$		$+41.7$
	$+9.34$		$+7.6$		$+10.95$
	$+30.08$		$+95.321$		$+5.057$
<hr/>					

Solution:

(i) We know that
 $102.360 + 7.054 + 0.800 = 110.214$

(ii) We know that
 $0.060 + 4.108 + 91.500 = 95.668$

(iii) We know that
 $312.800 + 290.020 + 128.457 = 731.277$

(iv) We know that
 $113.285 + 6.700 + 9.340 + 30.080 = 159.405$

(v) We know that
 $3.42 + 264.08 + 7.6 + 95.321 = 370.421$

(vi) We know that
 $18.003 + 41.700 + 10.950 + 5.057 = 75.710$

2. Add the following:

(i) 41.8, 39.24, 5.01 and 62.6

(ii) 4.702, 4.2, 6.02 and 1.27

(iii) 18.03, 146.3, 0.829 and 5.324

Solution:

(i) 41.8, 39.24, 5.01 and 62.6
 It can be written as
 $41.80 + 39.24 + 5.01 + 62.60 = 148.65$

(ii) 4.702, 4.2, 6.02 and 1.27
 It can be written as
 $4.702 + 4.200 + 6.020 + 1.270 = 16.192$

(iii) 18.03, 146.3, 0.829 and 5.324
 It can be written as

$$18.030 + 146.300 + 0.829 + 5.324 = 170.483$$

3. Find the sum in each of the following:

(i) $0.007 + 8.5 + 30.08$

(ii) $280.69 + 25.2 + 38$

(iii) $25.65 + 9.005 + 3.7$

(iv) $27.076 + 0.55 + 0.004$

Solution:

(i) $0.007 + 8.5 + 30.08$

It can be written as

$$0.007 + 8.500 + 30.080 = 38.587$$

(ii) $280.69 + 25.2 + 38$

It can be written as

$$280.69 + 25.20 + 38.00 = 343.89$$

(iii) $25.65 + 9.005 + 3.7$

It can be written as

$$25.650 + 9.005 + 3.700 = 38.355$$

(iv) $27.076 + 0.55 + 0.004$

It can be written as

$$27.076 + 0.550 + 0.004 = 27.630$$

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

Solution:

Amount given by Radhika's mother = Rs 10.50

Amount given by Radhika's father = Rs 15.80

So the total amount given by her parents = Rs 10.50 + Rs 15.80 = Rs 26.30

Hence, the total amount given by her parents is Rs 26.30.

5. Rahul bought 4 kg 90 g apples, 2 kg 60 g of grapes and 5 kg 300 g of mangoes. Find the weight of the fruits he bought in all.

Solution:

Weight of apples bought by Rahul = 4 kg 90 g = 4.090 kg

Weight of grapes bought by Rahul = 2 kg 60 g = 2.060 kg

Weight of mangoes bought by Rahul = 5 kg 300 g = 5.300 kg

So the weight of all the fruits = $4.090 + 2.060 + 5.300 = 11.450$ kg

Hence, the weight of the fruits bought by Rahul is 11.450 kg.

6. Nasreen bought 3 m 20 cm cloth for her shirt and 2 m 5 cm cloth for skirt. Find the total cloth bought by her.

Solution:

Cloth bought by Nasreen for shirt = 3 m 20 cm = 3.20 m
Cloth bought by Nasreen for skirt = 2 m 50 cm = 2.05 m
So the total cloth bought by her = $3.20 + 2.05 = 5.25$ m = 5 m 25 cm

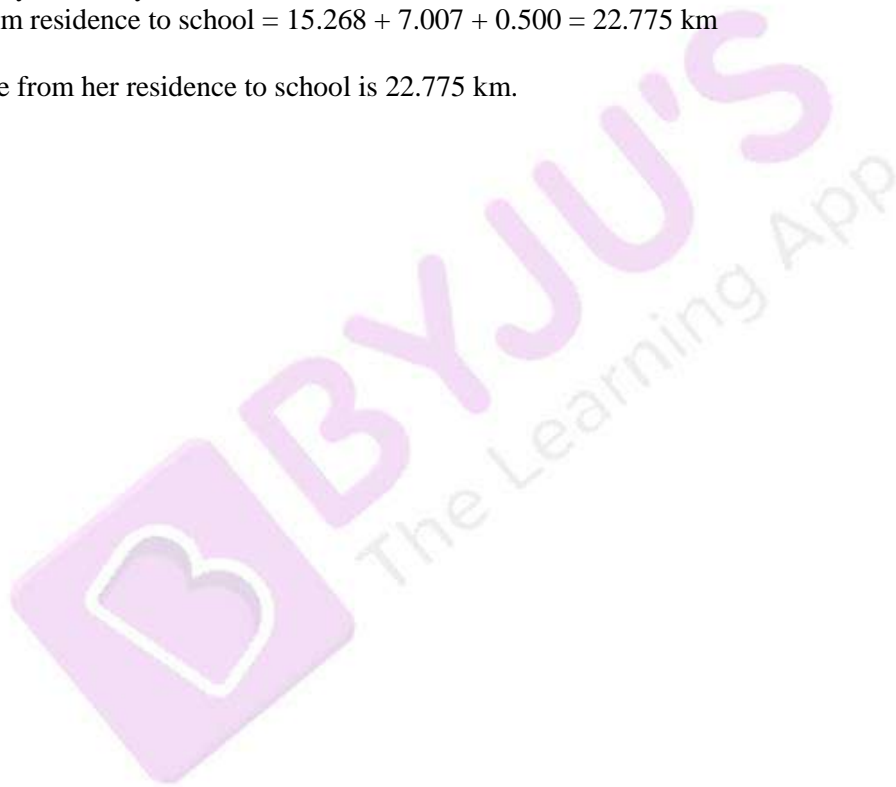
Hence, the total cloth bought by her is 5 m 25 cm.

7. Sunita travels 15 km 268 m by bus, 7 km 7 m by car and 500 m by 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 = 15.268 km
Distance travelled by Sunita by car = 7 km 7 m = 7.007 km
Distance travelled by Sunita by foot = 500 m = 0.500 km
So the distance from residence to school = $15.268 + 7.007 + 0.500 = 22.775$ km

Hence, the distance from her residence to school is 22.775 km.



EXERCISE 7.9

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1. Subtract:

(i)	$\begin{array}{r} 46.23 \\ - 37.5 \\ \hline \end{array}$	(ii)	$\begin{array}{r} 128.4 \\ - 53.05 \\ \hline \end{array}$	(iii)	$\begin{array}{r} 45.03 \\ - 27.8 \\ \hline \end{array}$	(iv)	$\begin{array}{r} 23.93 \\ - 5.946 \\ \hline \end{array}$
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Solution:

(i) We know that
 $46.23 - 37.5 = 8.73$

(ii) We know that
 $128.4 - 53.05 = 75.35$

(iii) We know that
 $45.03 - 27.8 = 17.23$

(iv) We know that
 $23.93 - 5.946 = 17.984$

2. Find the value of:

(i) $9.756 - 6.28$

(ii) $21.05 - 15.27$

(iii) $18.5 - 6.79$

(iv) $48.1 - 0.37$

(v) $108.032 - 86.8$

(vi) $91.001 - 72.9$

(vii) $32.7 - 25.86$

(viii) $100 - 26.32$

Solution:

(i) $9.756 - 6.28$
We know that
 $9.756 - 6.280 = 3.476$

(ii) $21.05 - 15.27$
We know that
 $21.05 - 15.27 = 5.78$

(iii) $18.5 - 6.79$
We know that
 $18.50 - 6.79 = 11.71$

(iv) $48.1 - 0.37$
We know that
 $48.10 - 0.37 = 47.73$

(v) $108.032 - 86.8$
We know that

$$108.032 - 86.800 = 21.232$$

(vi) $91.001 - 72.9$
We know that
 $91.001 - 72.900 = 18.101$

(vii) $32.7 - 25.86$
We know that
 $32.70 - 25.86 = 6.84$

(viii) $100 - 26.32$
We know that
 $100 - 26.32 = 73.68$

3. The sum of two numbers is 100. If one of them is 78.01, find the other.

Solution:

One of the number = 78.01
Sum of two numbers = 100
Consider x as the other number
It can be written as
 $78.01 + x = 100$
On further calculation
 $x = 100 - 78.01$
By subtraction
 $x = 21.99$

Hence, the other number is 21.99.

4. Waheeda's school is at a distance of 5 km 350 m from her house. She travels 1 km 70 m on foot and the rest she travels by bus. How much distance does she travel by bus?

Solution:

Distance of school from house = 5 km 350 m = 5.350 km
Distance travelled on foot = 1 km 70 m = 1.070 km
Consider x km as the distance travelled by bus
It can be written as
 $1.070 + x = 5.350$
On further calculation
 $x = 5.350 - 1.070$
So we get
 $x = 4.280$ km

Hence, the distance travelled by bus is 4.280 km.

5. 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?

Solution:

Cost of book = Rs 35.65

Amount given = Rs 50

So the balance returned = $50 - 35.65 = \text{Rs } 14.35$

Hence, the balance returned by the shopkeeper is Rs 14.35.

6. Ruby bought a watermelon weighing 5 kg 200 g. Out of this she gave 2 kg 750 g to her neighbour. What is the weight of the watermelon left with Ruby?

Solution:

Weight of watermelon bought by Ruby = 5 kg 200 g = 5.200 kg

Weight of watermelon Ruby gave to neighbour = 2 kg 750 g = 2.750 kg

So the weight of watermelon left with Ruby = Weight of watermelon bought by Ruby – Weight of watermelon Ruby gave to neighbour

We get

Weight of watermelon left with Ruby = $5.200 - 2.750 = 2.450$ kg

Hence, the weight of watermelon left with Ruby is 2.450 kg.

7. Victor drove 89.050 km on Saturday and 73.9 km on Sunday. How many kilometres more did he drive on Sunday?

Solution:

Distance travelled by Victor on Saturday = 89.050 km

Distance travelled by Victor on Sunday = 73.9 km

So the distance travelled more by Victor on Saturday = $89.050 - 73.9 = 15.15$ km

Hence, Victor drove 15.15 km more on Saturday.

8. 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?

Solution:

Cost of the book = Rs 35.65

Amount given = Rs 50

So the balance returned = $50 - 35.65 = \text{Rs } 14.35$

Hence, the shopkeeper returned back Rs 14.35.

9. Gopal travelled 125.5 km by bus, 14.25 km by pony and the rest of distance to Kedarnath on foot. If he covered a total distance of 150 km, how much did he travel on foot?

Solution:

Distance travelled by Gopal by bus = 125.5 km

Distance travelled by Gopal by pony = 14.25 km

Consider x km as the distance travelled on foot

We know that

Total distance = Distance travelled by Gopal by bus + Distance travelled by Gopal by pony + Distance travelled by Gopal on foot

By substituting the values

$150 = 125.5 + 14.25 + x$

On further calculation
 $x = 150 - 125.5 - 14.25$
We get
 $x = 10.25$ km

Hence, the distance travelled by Gopal on foot is 10.25 km.

10. 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 Tina had = 20 m 5 cm = 20.05 m
Length of cloth cut to make curtain = 4m 50 cm = 4.50 m
So the length of cloth left with her = Length of cloth Tina had - Length of cloth cut to make curtain
By substituting values
The length of cloth left with her = $20.05 - 4.50 = 15.55$ m

Hence, the length of cloth left with Tina is 15.55 m.

11. Vineeta bought a book for Rs 18.90, a pen for Rs 8.50 and some papers for Rs 5.05. She gave fifty rupee to the shopkeeper. How much balance did she get back?

Solution:

Cost of book = Rs 18.90
Cost of pen = Rs 8.50
Cost of papers = Rs 5.05
So the total cost = $18.90 + 8.50 + 5.05 =$ Rs 32.45
Amount given to the shopkeeper = Rs 50
So the balance returned back = $50 - 32.45 =$ Rs 17.55

Hence, the shopkeeper returned back Rs 17.55.

12. Tanuj walked 8.62 km on Monday, 7.05 km on Tuesday and some distance on Wednesday. If he walked 21.01 km in three days, how much distance did he walk on Wednesday?

Solution:

Distance walked by Tanuj on Monday = 8.62 km
Distance walked by Tanuj on Tuesday = 7.05 km
Consider x km as the distance walked by Tanuj on Wednesday
It can be written as
Total distance = Distance walked by Tanuj on Monday + Distance walked by Tanuj on Tuesday + Distance walked by Tanuj on Wednesday
By substituting the values
 $21.01 = 8.62 + 7.05 + x$
On further calculation
 $x = 21.01 - 8.62 - 7.05$
So we get
 $x = 5.34$ km

Hence, the distance walked by Tanuj on Wednesday is 5.34 km.

OBJECTIVE TYPE QUESTIONS

PAGE: 7.32

Mark the correct alternative in each of the following:

1. $\frac{3}{10}$ is equal to

- (a) 3.1
- (b) 1.3
- (c) 0.3
- (d) 0.03

Solution:

The option (c) is correct answer.

We know that $\frac{3}{10} = 0.3$

Here the denominator is 10, so we have to mark the decimal where 3 is in the tenth place.

2. $\frac{7}{100}$ is equal to

- (a) 7.1
- (b) 7.01
- (c) 0.7
- (d) 0.07

Solution:

The option (d) is correct answer.

We know that $\frac{7}{100} = 0.07$

Here the denominator is 100, so we have to mark the decimal where 7 is in the hundredth place.

3. $\frac{4}{1000}$ is equal to

- (a) 0.004
- (b) 0.04
- (c) 0.4
- (d) 4.001

Solution:

The option (a) is correct answer.

Here the denominator is 1000, so we have to mark the decimal where 4 is in the thousandth place.

4. The value of $\frac{37}{10000}$ is

- (a) 0.0370
- (b) 0.0037
- (c) 0.00037
- (d) 0.000037

Solution:

The option (b) is correct answer.

Here the denominator is 10000, so we have to mark the decimal where 3 is in the thousandth place and 7 is in the ten-thousandth place.

5. The place value of 5 in 0.04532 is

- (a) 5
- (b) $\frac{5}{100}$

- (c) $5/1000$
(d) $5/10000$

Solution:

The option (c) is correct answer.

We know that 5 is in the thousandth place.

So we get $0.04532 = 4/100 + 5/1000 + 3/10000 + 2/100000$

6. The value of $231/1000$ is

- (a) 0.231
(b) 2.31
(c) 23.1
(d) 0.0231

Solution:

The option (a) is correct answer.

It can be written as

$$231/1000 = (200+30+1)/1000 = 200/1000 + 30/1000 + 1/1000 = 2/10 + 3/100 + 1/1000$$

Here we have 2 tenths, 3 hundredths and 1 thousandth.

Hence, the value of $231/1000$ is 0.231.

7. The value of $3 \frac{5}{1000}$ is

- (a) 3.5
(b) 3.05
(c) 3.005
(d) 3.0005

Solution:

The option (c) is correct answer.

It can be written as

$$3 \frac{5}{1000} = 3 + 5/1000 = 3 + 0.005 = 3.005$$

8. The value of $3/25$ is

- (a) 1.2
(b) 0.12
(c) 0.012
(d) None of these

Solution:

The option (b) is correct answer.

It can be written as

$$3/25 = (3 \times 4) / (25 \times 4) = 12/100 = 0.12$$

9. The value of $2 \frac{1}{25}$ is

- (a) 2.4
(b) 2.25
(c) 2.04
(d) 2.40

Solution:

The option (c) is correct answer.

It can be written as

$$2\frac{1}{25} = 2 + \frac{1}{25} = 2 + \frac{(1 \times 4)}{(25 \times 4)} = 2 + \frac{4}{100} = 2 + 0.04 = 2.04$$

10. $4\frac{7}{8}$ is equal to

- (a) 4.78
- (b) 4.87
- (c) 4.875
- (d) None of these

Solution:

The option (c) is correct answer.

It can be written as

$$4\frac{7}{8} = 4 + \frac{7}{8} = 4 + \frac{(7 \times 125)}{(8 \times 125)}$$

On further calculation

$$4\frac{7}{8} = 4 + \frac{875}{1000} = 4 + 0.875 = 4.875$$

11. $2 + \frac{3}{10} + \frac{5}{100}$ is equal to

- (a) 2.305
- (b) 2.3
- (c) 2.35
- (d) 0.235

Solution:

The option (c) is correct answer.

We know that $\frac{3}{10} = 0.3$ having denominator as 10, so we need to mark the decimal where 3 is in the tenth place

$\frac{5}{100} = 0.05$ having denominator as 100, so we need to mark the decimal where 5 is in the hundredth place

It can be written as,

$$2 + \frac{3}{10} + \frac{5}{100} = 2 + 0.3 + 0.05 = 2.35$$

12. $\frac{3}{100} + \frac{5}{10000}$ is equal to

- (a) 0.35
- (b) 0.305
- (c) 0.0305
- (d) 0.3005

Solution:

The option (c) is correct answer.

We know that $\frac{3}{100} = 0.03$ having denominator 100, so we mark the decimal where 3 is in the hundredth place

$\frac{5}{10000} = 0.0005$ having denominator 10000, so we mark the decimal where 5 is in the ten thousandth place

It can be written as,

$$\frac{3}{100} + \frac{5}{10000} = 0.03 + 0.0005 = 0.0305$$

13. 1 cm is equal is

- (a) 0.1 m
- (b) 0.01 m

- (c) 0.10 m
(d) 0.001 m

Solution:

The option (b) is correct answer.

$$100 \text{ cm} = 1 \text{ m}$$

So we get,

$$1 \text{ cm} = 1/100 \text{ m} = 0.01 \text{ m}$$

14. 1 m is equal to

- (a) 0.1 km
(b) 0.01 km
(c) 0.001 km
(d) 0.0001 km

Solution:

The option (c) is correct answer.

$$1000 \text{ m} = 1 \text{ km}$$

So we get,

$$1 \text{ m} = 1/1000 \text{ m} = 0.001 \text{ km}$$

15. 2 kg 5 gm is equal to

- (a) 2.5 kg
(b) 2.05 kg
(c) 2.005 kg
(d) 2.6 kg

Solution:

The option (c) is correct answer.

$$1000 \text{ g} = 1 \text{ kg}$$

$$\text{So we get } 1 \text{ g} = 1/1000 \text{ kg} = 0.001 \text{ kg}$$

$$\text{The same way } 5 \text{ g} = 5/1000 \text{ kg} = 0.005 \text{ kg}$$

$$\text{Hence, } 2 \text{ kg } 5 \text{ gm} = 2 \text{ kg} + 0.005 \text{ kg} = 2.005 \text{ kg}$$

16. 15 litres and 15 ml is equal to

- (a) 15.15 litres
(b) 15.150 litres
(c) 15.0015 litres
(d) 15.015 litres

Solution:

The option (d) is correct answer.

$$1000 \text{ ml} = 1 \text{ litre}$$

$$\text{So we get } 1 \text{ ml} = 1/1000 = 0.001 \text{ litre}$$

$$\text{The same way } 15 \text{ ml} = 15/1000 = 0.015 \text{ litre}$$

$$\text{Hence, } 15 \text{ litre and } 15 \text{ ml} = 15 \text{ litre} + 0.015 \text{ litre} = 15.015 \text{ litres}$$

17. Which of the following are like decimals?

- (a) 5.5, 5.05, 5.005, 5.50
(b) 5.5, 0.55, 5.55, 5.555

- (c) 5.5, 6.6, 7.7, 8.8
(d) 0.5, 0.56, 0.567, 0.5678

Solution:

The option (c) is correct answer.

5.5, 6.6, 7.7, 8.8 are like decimals having same number of decimals.

18. The value of $0.5 + 0.005 + 5.05$ is

- (a) 5.55
(b) 5.555
(c) 5.055
(d) 5.550

Solution:

The option (b) is correct answer.

$$0.5 + 0.005 + 5.05 = 5.555$$

19. $0.35 - 0.035$ is equal to

- (a) 0.3
(b) 0.349
(c) 0.315
(d) 0.353

Solution:

The option (c) is correct answer.

$$0.35 - 0.035 = 0.315$$

20. $2.5 + 3.05 - 4.005$ is equal to

- (a) 1.545
(b) 1.455
(c) 1.554
(d) 0.545

Solution:

The option (a) is correct answer.

$$2.5 + 3.05 - 4.005 = 5.55 - 4.005 = 1.545$$

21. Which is greater among 2.3, 2.03, 2.33, 2.05?

- (a) 2.3
(b) 2.03
(c) 2.33
(d) 2.05

Solution:

The option (c) is correct answer.

We know that the whole parts of all the above numbers are equal.

So by comparing the tenth parts, two of the decimals have a tenth part 0 and two have a tenth part 3.

Now by leaving the decimals which have a tenth part 0, 2.3 and 2.33.

By comparing them, 2.33 is greater than 2.3, where, 2.3 has no hundredth part, while 2.33, the hundredth part is 3.