

CHAPTER - 7 DECIMALS

Exercise 7A - Page no - 113

1. Write each of the following in figures.

(i) Fifty-eight point six three.

Solution :- 58.63

(v) Four hundred four point zero four four

Solution :- 404.044

(vii) Point zero one five

Solution :- ₱ 0.015

2. Write the place value of each digit in each of the following decimals.

(iii) 46.075

Place value of 4 = 40

Place value of 6 = 6

Place value of 0 = 0

Place value of 7 = $\frac{7}{100}$

Place value of 5 = $\frac{5}{1000}$

1.

3. Write each of the following decimals in expanded form.

(i) $500 + 70 + 8 + \frac{3}{10} + \frac{1}{100} + \frac{6}{1000}$



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3. Write each of the following decimals in expanded form:

(ii) 283.61

Solution: $(2 \times 100) + (8 \times 10) + (3 \times 1) + (6 \times \frac{1}{10}) + (1 \times \frac{1}{100})$

or

$$200 + 80 + 3 + \frac{6}{10} + \frac{1}{100}$$

(iv) 8.006

Solution: $(8 \times 1) + 0 + 0 + (6 \times \frac{1}{1000})$

or

$$8 + \frac{6}{1000}$$

4. Write each of the following in decimal form.

(ii) $500 + 70 + 8 + \frac{3}{10} + \frac{1}{100} + \frac{6}{1000}$

Solution: 578.316

5. Convert each of the following into like decimals :

(i) 7.5, 64.23, 0.074

Solution:- 7.500, 64.230, 0.074.

(ii) 0.6, 5.937, 2.36, 4.2

Solution:- 0.600, 5.937, 2.360, 4.200.

(iii) 1.6, 0.07, 3.58, 2.9

Solution:- 1.60, 0.07, 3.58, 2.90.

6. Fill in the place holders with the correct symbol $>$ or $<$.

(i) 84.23 $>$ 76.35

(iv) 12.06 $>$ 12.006

(ii) 7.608 $<$ 7.68

(vi) 0.97 $<$ 1.07

7. Arrange the following decimals in ascending order:

(i) 5.8, 7.2, 5.69, 7.14, 5.06

Solution:- $5.06 < 5.69 < 5.8 < 7.14 < 7.2$

(ii) 0.6, 6.6, 6.06, 66.6, 0.06.

Solution:- $0.06 < 0.6 < 6.06 < 6.6 < 66.6$

8. Arrange the following decimals in descending order:

(i) 7.3, 8.73, 73.03, 7.33, 8.073.

Solution: $73.03 > 8.73 > 8.073 > 7.33 > 7.3$.

(ii) 3.3, 3.03, 30.3, 30.03, 3.003

Solution:- $30.3 > 30.03 > 3.3 > 3.03 > 3.003$.

*

Rules to follow: Comparing decimals.

Q.(i) Compare 63.84 and 57.98

\swarrow ? \searrow
 \cdot

Which number is greater or smaller?

Solution: (i) Compare their whole-number parts.

$$63 > 57$$

$\left. \begin{array}{l} 63 \\ 57 \end{array} \right\}$ whole number parts.

$$\therefore 63.84 > 57.98.$$

Q.(ii) Compare 24.7 and 24.58.

Solution:- The whole-number parts are equal.

$\underbrace{24.7}_{\text{whole number}}, \underbrace{24.58}_{\text{whole number}}$

Whole numbers are equal $24 = 24$



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→ Now check: first decimal parts.
clearly. 7 tenths > 5 tenths.

$$24.\underline{7}0 > 24.\underline{5}8$$

7 tenths > 5 tenths.

$$\therefore 24.7 > 24.58.$$

* Follow the same rules for finding or solving ascending order and descending order.

CHAPTER-7
DECIMALS

Exercise - 7B. Page no - 118

Convert each of the following into a fraction in its simplest form:

1. 0.9

Solution: $\frac{9}{10}$

2. 0.6

Solution: $\frac{6}{10} = \frac{3}{5}$

3. 0.8

Solution: $\frac{8}{10} = \frac{4}{5}$

Solution: $\frac{8}{100} = \frac{2}{25}$

4. 0.15

Solution: $\frac{15}{100} = \frac{3}{20}$

5. 0.48

Solution: $\frac{48}{100} = \frac{12}{25}$



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* Convert each of the following into a decimal.

$$(17.) \frac{23}{10} = 2.3$$

$$(22.) \frac{25}{4}$$

$$(18.) \frac{167}{100} = 1.67$$

$$= \frac{25.00}{4}$$

$$(19.) \frac{1589}{100} = 15.89$$

$$= 4 \overline{) 25.00} (6.25$$

$$\begin{array}{r} 24 \downarrow \\ \hline 10 \\ - 8 \downarrow \\ \hline 20 \\ - 20 \\ \hline 0 \end{array}$$

$$(20.) \frac{5413}{1000} = 5.413$$

$$(21.) \frac{21415}{1000} = 21.415$$

$$= 6.25$$

$$(23.) 3\frac{3}{5} = \frac{5 \times 3 + 3}{5}$$

$$= \frac{18}{5}$$

$$= \frac{18.0}{5}$$

$$\begin{array}{r} 3 \overline{) 18.0} (3.6 \\ 15 \downarrow \\ \hline 30 \\ - 30 \\ \hline 0 \end{array}$$

$$= 3.6$$

⑥ .053

Solution: $\frac{53}{1000}$

⑦ 0.125

Solution: $\frac{125}{1000} = \frac{1}{8}$

⑧ .224

Solution: $\frac{224}{1000} = \frac{28}{125}$

* Convert each of the following as a mixed fraction.

⑩ $16.5 = 16 \frac{5}{10} = 16 \frac{1}{2}$

⑬ $25.06 = 25 \frac{6}{100} = 25 \frac{3}{50}$

⑭ $7.004 = 7 \frac{4}{1000} = 7 \frac{1}{250}$

(31) $\frac{3}{40}$

$= \frac{3,000}{40}$

$= 40 \overline{) 3.000} (0.075$

-	0	↓		
<hr/>				
	3	0		
-	0	↓		
<hr/>				
	3	0		
-	2	8	↓	
<hr/>				
	2	0		
	2	0		
<hr/>				
				x

$= 0.075$

Exercise - 7B - P-118

33. Using decimals express.

(i) 8 kg 640 g in kilograms.

$$\begin{aligned}\text{Solution - } & 8 \text{ kg } 640 \text{ g} \\ & = 8 \text{ kg} + \frac{640}{1000} \text{ kg} \quad [1 \text{ kg} = 1000 \text{ g}] \\ & = 8 \text{ kg} + 0.640 \text{ kg} \\ & = 8.640 \text{ kg}.\end{aligned}$$

34. Using decimals, express

(i) 4 km 365 m in Kilometres

$$\begin{aligned}\text{Solution - } & 4 \text{ km } 365 \text{ m} \\ & = 4 \text{ km} + \frac{365}{1000} \text{ km} \quad [1 \text{ km} = 1000 \text{ m}] \\ & = 4 \text{ km} + 0.365 \text{ km} \\ & = 4.365 \text{ km}.\end{aligned}$$

(ii) 270 m in Kilometres.

$$\begin{aligned}\text{Solution - } & 270 \text{ m} \\ & = \frac{270}{1000} \text{ km} \\ & = 0.270 \text{ km}.\end{aligned}$$

(v) 35 m in Kilometres

$$\begin{aligned}\text{Solution - } & 35 \text{ m} \\ & = \frac{35}{1000} \text{ km} = 0.035 \text{ km}.\end{aligned}$$



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35. Using decimals express

(ii) 8kg 96g in kilograms.

Solution: - 8kg 96g

$$= 8\text{kg} + \frac{96}{1000}\text{kg}$$

$$= 8\text{kg} + 0.096\text{kg}$$

$$= 8.096\text{kg}$$

36. Using decimals, express.

(i) ₹ 18 and 25 paise in rupees.

Solution: - ₹ 18 + ₹ $\frac{25}{100}$ [1 rupee = 100 paise]

$$= ₹ 18 + ₹ 0.25$$

$$= ₹ 18.25$$


(iii) 32 paise in rupees.

Solution: - 32 paise

$$= ₹ \frac{32}{100}$$

$$= ₹ 0.32$$

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Add the following decimals:

① 9.6, 14.8, 37 and 5.9

Sol:-

$$\begin{array}{r} 9.6 \\ 14.8 \\ 37.0 \\ + 5.9 \\ \hline 67.3 \end{array}$$

Ans:- 67.3

② 23.7, 106.94, 68.9 and 29.5

Sol:-

$$\begin{array}{r} 23.70 \\ 106.94 \\ 68.90 \\ + 29.50 \\ \hline 229.04 \end{array}$$

Ans:- 229.04

③ 4.37, 9.638, 17.007 and 6.8

Sol:-

$$\begin{array}{r} 4.370 \\ 9.638 \\ 17.007 \\ + 6.800 \\ \hline 37.815 \end{array}$$

Ans : 37.815



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11. Ramesh covers 36km 235m by taxi, 4km 85m by rickshaw and 1km 80m on foot. What is the total distance covered by him?

Solution:- Distance covered by taxi = 36km 235m
Distance covered by rickshaw = 4km 85m
Distance covered by foot = 1km 8m.

$$\begin{array}{r} \text{Total distance covered} = 36.235 \text{ km} \\ \phantom{\text{Total distance covered}} + 4.085 \text{ km} \\ \phantom{\text{Total distance covered}} + 1.080 \text{ km} \\ \hline 41.400 \text{ km} \end{array}$$

Hence, Total distance covered by Ramesh is 41km 400m



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13. Ramu bought 2m 70cm cloth for his shirt and 2m 60cm cloth for his pyjamas. Find the total length of cloth bought by him.

Solution

Length of his shirt = 2m 70cm

Length of his pyjamas = 2m 60cm

$$\begin{array}{r} \text{Total length of cloth} = 2.70 \text{ m} \\ + 2.60 \text{ m} \\ \hline 5.30 \text{ m} \end{array}$$

Hence, The total length of cloth bought by Ramu is 5.30m or 5m 30cm.

Subtract:

1. 27.86 from 53.74

$$\begin{array}{r} \text{Sol:} - \quad 53.74 \\ - 27.86 \\ \hline 25.88 \end{array}$$

Ans: - 25.88

2. 64.98 from 103.87

$$\begin{array}{r} \text{Sol:} - \quad 103.87 \\ - 64.98 \\ \hline 38.89 \end{array}$$

Ans: - 38.89

3. 59.63 from 92.4

$$\begin{array}{r} \text{Sol:} - \quad 92.40 \\ - 59.63 \\ \hline 32.77 \end{array}$$

Ans: - 32.77

8. 458.573 from 600

$$\begin{array}{r} \text{Sol:} - \quad 600.000 \\ - 458.573 \\ \hline 141.427 \end{array}$$

Ans: - 141.427



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Simplify:

$$\begin{aligned} 11. \quad & 37.6 + 72.85 - 58.678 - 6.09 \\ & = 110.45 - 58.678 - 6.09 \\ & = 51.772 - 6.09 \\ & = 45.682 \end{aligned}$$

$$\begin{array}{r} 37.60 \\ + 72.85 \\ \hline 110.45 \\ \\ 110.450 \\ - 58.678 \\ \hline 51.772 \\ \\ 51.772 \\ - 6.090 \\ \hline 45.682 \end{array}$$

(12) $75.3 - 104.645 + 178.96 - 47.9$

Sol: $= 75.3 + 178.96 - 104.645 - 47.9$

$= 254.26 - 104.645 - 47.9$

$= 149.615 - 47.9$

$= 101.715$

178.96

$+ 75.30$

 254.26

254.260
 $- 104.645$

 149.615

149.615

$- 47.900$

 101.715

(13) $213.4 - 56.84 - 11.87 - 16.087$

Sol: $= 156.56 - 11.87 - 16.087$

$= 144.69 - 16.087$

$= 128.603$

213.40

$- 56.84$

 156.56

156.56

$- 11.87$

 144.69

144.690

$- 16.087$

 128.603



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(14.) $76.3 - 7.666 - 6.77$

sol $= 76.3 - 7.666 - 6.77$

$= 68.634 - 6.77$

$= 61.864$

76.300

$- 7.666$

68.634

$- 6.770$

61.864

51.815

20.84

122.22

122.22

11.87

144.44

042.441

780.31

188.003

$780.31 - 78.11 - 48.22 - 4.815$

$780.31 - 78.11 - 22.221 = 102$

$780.31 - 10.87 - 144.44 =$

$802.881 =$