

DECIMAL FRACTIONS

A number written with a decimal point is known as decimal fraction or decimal number.

Decimal number is the other way of writing fraction.

A decimal fraction is a fraction whose denominator is 10, 100, 1000

Use of decimals in Measures of Length

- MM = millimetre
- CM = centimetre
- M = metre
- Symbol of Rupee = ₹
- $1\text{m} = 100\text{cm} \rightarrow 1\text{cm} = \frac{1}{100}\text{m} = 0.01\text{m}$
- $10\text{mm} = 1\text{cm} \rightarrow 1\text{mm} = \frac{1}{10}\text{cm}$
- $100\text{paise} = 1\text{rupee} \rightarrow 1\text{paise} = \frac{₹1}{100} = ₹0.01$

Ex = 4.1

I Read the following decimals and write them in words.

1. $0.5 \rightarrow$ Zero point five.
2. $0.13 \rightarrow$ Zero point one three.
3. $1.7 \rightarrow$ One point seven.
4. $5.21 \rightarrow$ five point

II Write the numeral representing each of the following.

- 1) Zero point one two = 0.12
- 2) Six point eight = 6.8
- 3) Ten point five = 10.5
- 4) Four point zero two = 4.02
- 5) Six point eight four = 6.84
- 6) One hundred eight point zero six = 108.06

III Fill in the blanks

1. $8 \text{ mm} = \underline{0.8} \text{ cm}$
2. $75 \text{ mm} = \underline{7.5} \text{ cm}$
3. $8 \text{ cm } 5 \text{ mm} = \underline{8.5} \text{ cm}$

4. $525 \text{ mm} = \underline{52.5} \text{ cm}$

IV Fill in the blanks.

1. $8 \text{ cm} = \underline{0.08} \text{ m} \left(\frac{8}{100} \right)$

2. $72 \text{ cm} = \underline{0.72} \text{ m}$

3. $375 \text{ cm} = \underline{3.75} \text{ m}$

4. $4 \text{ m } 80 \text{ cm} = \underline{4.80} \text{ m}$

5. $15 \text{ m } 6 \text{ cm} = \underline{15.06} \text{ m}$

V Write in decimal fraction.

1. $75 \text{ paise} = \underline{\text{₹ } 0.75}$

2. $10 \text{ rupees and } 25 \text{ paise} = \underline{\text{₹ } 10.25}$

3. $870 \text{ paise} = \underline{\text{₹ } 8.70}$

4. $782 \text{ rupees and ten paise} = \underline{\text{₹ } 782.10}$

5. $2050 \text{ paise} = \underline{\text{₹ } 20.50}$

Exc 4.2

I Write the following fractions as decimal fractions.

1. $\frac{8}{10} \rightarrow 0.8$

7. $\frac{7}{100} \rightarrow 0.07$

2. $\frac{7}{10} \rightarrow 0.7$

8. $\frac{72}{100} \rightarrow 0.72$

3. $\frac{6}{10} \rightarrow 0.6$

9) $\frac{861}{100} \rightarrow 8.61$

4. $\frac{16}{10} \rightarrow 1.6$

10) $\frac{162}{10} \rightarrow 16.2$

5. $\frac{42}{10} \rightarrow 4.2$

11) $\frac{141}{100} \rightarrow 1.41$

6. $\frac{83}{10} \rightarrow 8.3$

12) $\frac{1461}{100} \rightarrow 14.61$

13. $\frac{1}{2} \rightarrow 0.5$

$$\begin{array}{r} 0.5 \\ 2 \overline{) 10} \\ \underline{-10} \\ 00 \end{array}$$

14) $\frac{3}{4} = 0.75$

$$\begin{array}{r} 0.75 \\ 4 \overline{) 30} \\ \underline{-28} \\ 20 \\ \underline{-20} \\ 00 \end{array}$$

11 Write the following decimal fractions as fractions

1) $0.7 \rightarrow \frac{7}{10}$

2) $0.02 = \frac{2}{100}$

3) $3.8 = 3 \frac{8}{10}$

4) $14.5 = 14 \frac{5}{10}$

5) $0.56 = \frac{56}{100}$

6) $8.03 = 8 \frac{3}{100}$

7) $14.57 = 14 \frac{57}{100}$

8) $85.4 = 85 \frac{4}{10}$

9) $147.5 = 147 \frac{5}{10}$

10) $8.5 = 8 \frac{5}{10}$

11) $85.61 = 85 \frac{61}{100}$

12) $6.84 = 6 \frac{84}{100}$