Decimals

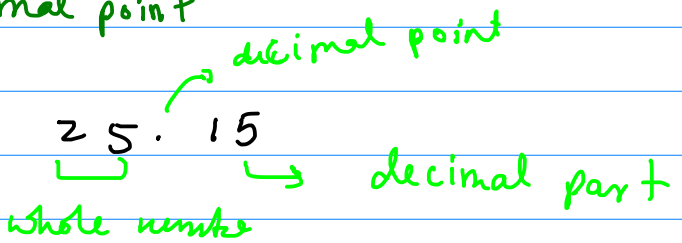
Fraction with denominator as power of 10

$10, 10^2 = 100, \quad 10^3 = 10 \times 10 \times 10 = 1000, \quad 10^4 = 10 \times 10 \times 10 \times 10 = 10000,$

A decimal consists of two parts

Whole number and decimal number

decimal point



like decimals

206.27 → 3

24.731 → 3

Q.

4.51

6.02

4.5 → unlike → 4.50 → like

6.02

unlike decimals

→ convert unlike to like by adding zero at the end

21. 2.456, 0.007, 7.071, 7.551

0.007 < 2.456 < 7.071 < 7.551

2.456, 0.7, 2.23, 4.51

convert them into decimals

2.456, 0.700, 2.230, 4.510

(now image there is no decimal point)

2456, 0700, 2230, 4510

0.700 < 2.230 < 2.456 < 4.510

Write 15 paise in ₹

Since 100 paise = 1 Rupee

$\Rightarrow$ 1 paise = $\frac{1}{100}$ Rupee

$\Rightarrow$ 15 paise = $\frac{15}{100}$ Rupee

Write 150 gm in kg.

$\Rightarrow$ 0.150 kgs.

Test

① Which is smaller 25.67 and 25.671 ? 25.67

② Add 291.45 and 62.291 = 353.741

$$\begin{array}{r} 291.450 \\ +\ 62.291 \\ \hline 353.741 \end{array}$$

③ Salim bought 5kg 300gm apples and 3kg 250gm mangoes. Sarita bought 4kg 800gm orange and 4kg 150 gm bananas. Who bought more fruits? By how much more?

④ How much less is 32.5 km from 53.4 km.

⑤ multiply 2.3 × 4.2

⑥ 3 × 4.52

⑦ 1.01 × 2.44

⑧ 609.75 × 1000

⑨ 6.118 × 200

⑩ 285.6 ÷ 100

$$\begin{array}{r} 2.856 \\ 100 \overline{)\ 285.6} \\ -200 \\ \hline 856 \\ -800 \\ \hline 560 \\ -500 \\ \hline 600 \\ -600 \\ \hline 0 \end{array}$$

③ Total weight carried by Salim = 5.3 kg + 3.250 kg = 8.550 kg

Total weight carried by Sarita = 4.8 kg + 4.150 kg = 8.950 kg

So sarita bought by 400 g

(4) 53.4
− 32.5
20.9 km

(5) 9.66

(6) 13.56

(7) 2.4644

(8) 609750

(9) 1223.6

(10) 2.856

Vihaan = 10/10

Shinjan = 10/10

Vidhi = 10/10

Some more problems :-

$\frac{7}{11} - \frac{5}{11} = \frac{2}{11}$

1. What number should be added to $\frac{5}{11}$ to get $\frac{7}{11}$?

2. The sides of a triangle are $\frac{7}{2}$ cm, $\frac{11}{4}$ cm and $\frac{16}{5}$ cm. Find its perimeter.

3. Find

(i) $\frac{1}{4}$ of a rupee $\Rightarrow$ 25 paise

(ii) $\frac{7}{25}$ of a kg $= \frac{7}{25} \times 1000$ gm $= 280$ gm

$\frac{3}{4} \times 36 = 27$ $\quad$ $\frac{4}{5} \times 35 = 28$

4. Which is greater: $\frac{3}{4}$ of 36 or $\frac{4}{5}$ of 35 ?

5. Sikha's age is $\frac{2}{5}$ of the age of her eldest brother. If her brother's age is 35 years, then how old is Shikha ?

$\frac{7}{2} + \frac{11}{4} + \frac{16}{5}$ $\quad$ (lcm (2, 4, 5) = 20)

$\frac{7}{2} = \frac{7 \times 10}{20} = \frac{70}{20}$ $\quad$ $\frac{11}{4} = \frac{55}{20}$, $\quad$ $\frac{16}{5} = \frac{64}{20}$

$$\frac{189}{20} = 9\frac{9}{20}$$

5) Sikha's age $= \frac{2}{5}$ of the age of her brother

$$= \frac{2}{5} \times 35$$

$$= \frac{2}{\cancel{5}} \times \cancel{35}^{7} = 2 \times 7 = 14$$