Jan 1

## Percentage.

⇒ Whenever we have '2' zero :-

→ $a\%\ of\ b = \frac{a}{100} \cdot b$

(i) $20\%\ of\ 30 \Rightarrow \frac{20}{100} \times 30 = 6$

(ii) $40\%\ of\ 70 = 28$

⇒ What if we Don't have '2' 2ero's (1 2ero) :-

→ $30\%\ of\ 42 = 3 \times 42 = \frac{126}{10} = 12.6$

(iii) $70 \times 82 = 57.4$

(iii) $90\%\ of\ 63 = 56.7$

(iv) $30\%\ of\ 61 = 18.3$

⇒ No - 2ero's

(i) $31\%\ of\ 43$

$\Rightarrow$ $31 \times 43 = 1333$, $\frac{1333}{100} = 13.33\%$

(ii) $48\%\ of\ 53$

$48 \times 53 = 144 + 2400 = 2544$, $\frac{2544}{100} = 25.44$

(iii) $76 \times 89$

$= 76 \times 89 = 711 + 6080 = 6791$, $= 67.64$

Fraction ⇔ Percentage:

| | | | |
|---|---|---|---|
| → 50% | = 1/2. | → 25% | = 1/4 |
| → 33.33 | = 1/3 | → 12.5 | = 1/8 |

(i) 62.5% of 64

(ii) 84% of 150

= 150% of 84 ⇒ (100% − 50% of 84)

= 84 − 42 = 42

$$a\% \text{ of } b = b\% \text{ of } a$$

## Word problems

(i) If 12% of x = 6% of y, Then 18% of x will how much of y?

Methode 1.

(12% of x) (?% of y) = (6% of y) (18% of x)

$= 12 \times 18 = 6 \times 18$

$= 9$

Methode 2.

12% x = 6% y. — (1)

6% x = 3% y. → (2)

(2) × 3 = 18% x = 9% y

1/2

(ii) When a number Decreased by 40% Becomes 480 what is the value of No. When Increased by 20%?

Sol

When a No. Decreased by 40% is 480
Then That means 60% = 480

Then $60\% n = 480$

$1\% n = 8$

$n = 800$

$100\% n = 800$

$+ 20\% n$

$120\% n \Rightarrow 120\% \text{ of } 800$

$= 960$

(iii) A vendor Sell 50% of Apples he had & Thrown away 20% of Reminder. Next day he sells 60% of the reminder & Thrown away the Rest. So, What is the total percentage of the Apples he Thrown away

Sol Let the Apples = 100

Day 1

→ 50% sold i.e 50 peices Sold

→ 20% of Remining Thrown i.e 20% 50 = 10 peices Thrown.

Remaing Apples by End of Day = 40 peice

Day - 2

→ Sold 60% of Remaining i.e 60% 40 = 24 Sold

→ Rest all Thrown i.e = 40 - 24 = 16 Peices Thrown

Total Thrown = 10 + 16 = 26

∴ Total % of Thrown Apples = 26%