H.C.D
30/9/21

Ex- 7(c)

8. Maths percentage $= \frac{120}{150} \times 100 = 80\%$

English Percentage $= \frac{136}{200} \times 100 = 68\%$.

Science Percentage $= \frac{108}{150} \times 100 = 72\%$

Total number scored $= 120 + 136 + 108 = 364$
Maximum marks $= 150 + 200 + 150 = 500$

$\therefore$ Overall % $= \frac{364}{500} \times 100 = 72.8\%$.

9. Let age of B = 100 years

$\therefore$ Age of A $= 100 + 100 \times \frac{25}{100} = 125$ years

Difference in age by which A is other than B
$= 125 - 100$
$= 25$ years

$\therefore$ % by which B is younger than A $= \frac{25}{125} \times 100 = 20\%$

11. Total number of votes polled = 29200 + 58800 + 72000
= 160000

∴ Percentage of votes scored by winning candidate

$$= \frac{72000}{160000} \times 100 = 45\ \%$$

12. (i) Let the number be x.

By the given condition,

$$x + \frac{23x}{100} = 861$$

$$\Rightarrow \frac{100x + 23x}{100} = 861$$

$$\Rightarrow x\left(\frac{123}{100}\right) = 861$$

$$\Rightarrow x = \frac{861 \times 100}{123} = 700$$

∴ Required number = 700

(ii) Let the number = 100

By the given conditions

$$x - \frac{x \times 16}{100} = 798$$

$$\Rightarrow \frac{100x - 16x}{100} = 798$$

$$\Rightarrow \frac{84x}{100} = 798$$

$$\Rightarrow 6x = \frac{798 \times 100}{84} = \frac{114 \times 100}{12} = 950$$

$\therefore$ So the required number is 950.

13. Let price of x kg of sugar = ₹100

Increase in price = 20%

$\therefore$ New Price = 100 + 20 = ₹120

$\therefore$ For ₹120, sugar obtained = x kg

For ₹100, sugar obtained $= \frac{x}{120} \times 100 = \frac{5x}{6}$ kg

Original consumption = x kg

New consumption = $\frac{5x}{6}$ kg

Decrease in consumption $= x - \frac{5x}{6} = \frac{x}{6}$

Required % of decrease in consumption.

$$= \frac{\frac{x}{6}}{x} \times 100 = \frac{x}{6x} \times 100 = \frac{\overset{50}{\cancel{100}}}{\cancel{6}_3} = \frac{50}{3} = 16\frac{2}{3}\%$$