

8) Marks scored by Kavita in Maths = $\frac{120}{150} = \frac{4}{5}$

Percentage in Math = $\frac{4}{5} \times 100 = 80\%$

Marks scored by Kavita in English = 136

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

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

Total marks scored = $120 + 136 + 108 = 364$

Maximum marks = $150 + 200 + 150 = 500$

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

9) Let age of B = 100 years.

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

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

∴ Percentage by B younger than A = $\frac{25}{125} \times 100 = 20\%$

10) i) $180 + 180 \times \frac{25}{100} = 225$

ii) $140 - 140 \times \frac{18}{100} = 140 - 25.2 = 114.8$

$$ii) \text{ Total number of votes} = 29200 + 58800 + 72000 = 160000$$

\therefore Percentage of votes scored by winning candidate

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

124) i) Let the number be x

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

$$= 100x + 23x = 86100$$

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

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

\therefore Req. no. = 700

ii) Let the number be x

$$2) \quad x - x \times \frac{16}{100} = 798$$

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

$$= x \left(\frac{84}{100} \right) = 798$$

$$= x = \frac{798 \times 100}{84} = \frac{38}{3} \times 100 = 950$$

\therefore Req. no. = 950

137 Let price of x kg of sugar = ₹100

Increase in price by 20%.

$$\therefore \text{New price} = 100 + 20 = ₹120$$

$$\therefore ₹120, \text{ sugar obtained} = x \text{ kg}$$

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

Original consumption = x kg.

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

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

Req. percentage of decrease in consumption = $\frac{x}{6} \times 100$

$$= \frac{x}{6x} \times 100 = \frac{100}{6} = 16\frac{2}{3}$$