

(1) Verdeel 120 in die verhouding 2 : 3.

$$2 + 3 = 5$$

$$\frac{2}{5} \times \frac{120}{1} = 2 \times 24 = 48$$

$$\frac{3}{5} \times \frac{120}{1} = 3 \times 24 = 72$$

(2) Bepaal die verhouding van elk van die volgende in eenvoudigste vorm:

(a) 55c en R2,20

$$\frac{55^c}{R2,20}$$

$$= \frac{55^c}{220^c} \div \frac{55}{55}$$

$$= \frac{1}{4} = 1:4$$

(b) 14 km en 84 km

$$\frac{14 \text{ km}}{84 \text{ km}}$$

$$= \frac{14}{84} \div \frac{14}{14}$$

$$= \frac{1}{6} = 1:6$$

(3) As 3 kg kaas R162,75 kos, bereken die prys van:

(a) 1 kg kaas

$$\frac{3 \text{ kg}}{3} = \frac{R162,75}{3}$$

$$\therefore 1 \text{ kg} = R54,25$$

(b) 5 kg kaas

$$5 \text{ kg} \times R54,25$$

$$= R271,25$$

(4) Verminder 75 met 20%.

$$20\% \text{ van } 75$$

$$= \frac{20}{100} \times \frac{75}{1}$$

$$= \frac{15}{1}$$

$$= 15 \quad \therefore 75 - 15 = 60$$

$$100\% - 20\%$$

↑

$$\text{of} \quad 80\% \text{ van } 75$$

$$= \frac{80}{100} \times \frac{75}{1}$$

$$= \frac{300}{5}$$

$$= 60$$

- (5) Jan se salaris vermeerder jaarliks met 8%. Indien sy huidige salaris R140 000 per jaar is, bereken Jan se jaarlikse salaris na twee jaar.

$$\begin{aligned} 1^{\text{st}} \text{ jaar: } & \begin{array}{l} 100\% + 8\% \\ 108\% \text{ van } R140\,000 \end{array} \\ & = \frac{108}{100} \times \frac{140\,000}{1} = 108 \times 1400 = R151\,200 \end{aligned}$$

$$\begin{aligned} 2^{\text{de}} \text{ jaar: } & 108\% \text{ van } R151\,200 \\ & = \frac{108}{100} \times \frac{151\,200}{1} = 108 \times 1512 = R163\,296 \end{aligned}$$

- (6) Bereken 75% van R3 450 124.

$$\begin{aligned} & 75\% \text{ van } R3\,450\,124 \\ & = \frac{375}{1000} \times \frac{R3\,450\,124}{1} = 862\,531 \\ & = 3 \times R862\,531 \\ & = R2\,587\,593 \end{aligned}$$

- (7) Bepaal x só dat die volgende verhoudings eweredig is:

$$\begin{aligned} \text{(a)} \quad \frac{x}{5} &= \frac{3}{5} \quad \begin{array}{l} \text{Noemers dieselfde} \\ \Rightarrow \text{tellers dieselfde} \end{array} \\ \therefore x &= 3 \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad \frac{3}{x} &= \frac{3}{7} \quad \begin{array}{l} \text{tellers dieselfde} \\ \Rightarrow \text{noemers dieselfde} \end{array} \\ \therefore x &= 7 \end{aligned}$$

$$\text{(c)} \quad \frac{x}{2} = \frac{3}{4}$$

$$\frac{x}{2} \times \frac{2}{2} = \frac{3}{4}$$

$$\frac{2x}{4} = \frac{3}{4}$$

$$2x = 3$$

$$x = \frac{3}{2}$$

$$\text{(d)} \quad \frac{2}{3} = \frac{x}{2}$$

$$\frac{2}{3} \times \frac{2}{2} = \frac{x}{2} \times \frac{3}{3}$$

$$\frac{4}{6} = \frac{3x}{6}$$

$$\therefore 4 = 3x$$

$$\therefore x = \frac{4}{3}$$