

Werkkaart 2015-7AD-00003(1) – Verhouding en koers

(1) Verdeel: (a) R80 in die verhouding 3 : 5.

$$3 + 5 = 8$$

$$\therefore \frac{3}{8} \text{ van } R80 = \frac{3}{8} \times \frac{80}{1} = R30$$

$$\text{en } \frac{5}{8} \text{ van } R80 = \frac{5}{8} \times \frac{80}{1} = R50$$

(b) 36 000 l in die verhouding 1 : 2 : 3 $1 + 2 + 3 = 6$

$$\therefore \frac{1}{6} \times \frac{36\,000}{1} = 1 \times 6000 = 6\,000 \text{ l}$$

$$\frac{2}{6} \times \frac{36\,000}{1} = 2 \times 6000 = 12\,000 \text{ l}$$

$$\frac{3}{6} \times \frac{36\,000}{1} = 3 \times 6000 = 18\,000 \text{ l}$$

(2) Skryf die volgende verhoudings in eenvoudigste vorm:

(a) R33 : 30c

(b) 3 dosyn : 36

$$R33 = 330c$$

$$3 \text{ dosyn} = 36$$

$$\therefore \frac{330}{30}$$

$$\therefore \frac{36}{36}$$

$$= \frac{11}{1} = 11:1$$

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

(c) 440 g : 1 kg

(d) 4,5 ure : $1\frac{1}{2}$ uur

$$1 \text{ kg} = 1000 \text{ g}$$

$$1\frac{1}{2} \text{ uur} = 1,5 \text{ uur}$$

$$\therefore \frac{440}{1000} = \frac{44}{100}$$

$$\therefore \frac{4,5}{1,5}$$

$$= \frac{11}{25} = 11:25$$

$$= \frac{3}{1} = 3:1$$

(3) 14 penne kos R105. Bereken die prys van een pen.

$$14 \text{ penne kos } R105$$

$$\therefore 1 \text{ pen kos } \frac{105}{14} = \frac{15}{2}$$

$$= R7,50$$

(4) Beskou die onderstaande tabel. Aanvaar dat 'n konstante spoed gehandhaaf word.

Aantal ure gery:	1	2	3	4*	7	9	10	20	25
Km afgelê:	75	150	225	300	525	675	750	1 500	1 875

(a) Bereken die konstante spoed.

$$\text{Konstante spoed} = \frac{75 \text{ km}}{1 \text{ h}} = 75 \text{ km/h}$$

(b) Voltooi die tabel. Toon alle berekeninge.

$$\begin{array}{ll} 4 \times 75 = 300 & 10 \times 75 = 750 \\ 7 \times 75 = 525 & 1500 \div 75 = 20 \\ 675 \div 75 = 9 & 1875 \div 75 = 25 \end{array}$$

(c) Hoe lank sal dit neem om 600 km af te lê?

$$600 \text{ km} \Rightarrow \frac{600}{75} = 8 \text{ ure}$$

o'f $600 \text{ km} = 2 \times 300 \text{ km} = 2 \times 4 = 8 \text{ (Sien tabel *)}$

(d) Hoeveel meter is na 'n halfuur afgelê?

$$\begin{aligned} \frac{1}{2} \text{ uur} &= \frac{1}{2} \text{ van } 75 = 37,5 \text{ km} \\ &= 37,5 \times 1000 \text{ m} \\ &= 37500 \text{ m} \end{aligned}$$

(5) Twintig liter sap kos R160. Hoeveel sal $8\frac{1}{2}$ liter sap kos?

$$\begin{aligned} 20 \text{ l kos } R160 \\ \therefore 1 \text{ l sap kos } \frac{R160}{20} = R8 / \text{l} \\ \therefore 8\frac{1}{2} \text{ l kos } R8 \times 8\frac{1}{2} \\ = \frac{8^4}{1} \times \frac{17}{2} \\ = R68 \end{aligned}$$