

# SHARP

## Werkkaart 1 Memorandum – Algemene berekeninge

### Wiskundige Geletterdheid – Graad 12

1. a)  $x = \text{aantal blou krale}$   
 $3x = 260 - 80$   
 $x = 60 \text{ blou krale}$
- b)  $y = \text{aantal rooi krale}$   
 $y = 260 - 80 - 60$   
 $y = 120 \text{ rooi krale}$
- c)  $60 : 120 : 80 \rightarrow 3 : 6 : 4$
- d)  $\text{groen} : \text{rooi} \rightarrow 4 : 6$   
 $100 \times \frac{6}{4} = 150 \text{ rooi krale}$
- e)  $\text{groen} : \text{blou} \rightarrow 4 : 3$   
 $100 \times \frac{3}{4} = 75 \text{ blou krale}$
- f)  $100 \text{ groen krale} + 150 \text{ rooi krale} + 75 \text{ blou krale} = 325 \text{ krale}$
2. a)  $42 \div 6 \times 2 + 3 \times 2 \div 8 \times 6 = 18\frac{1}{2}$
- b)  $\frac{2 \times 3}{x y} \times \frac{5}{6} \times \frac{7y}{2} \div \frac{9}{3x} = 5\frac{5}{6}$
- c)  $7^3 \times 4^6 \div 2^{11} = 686$
- d)  $\frac{\sqrt{256}}{4} = \frac{16}{4} = 4$
- e)  $35\% \text{ van } (280 \times 3^3) = 2\ 646$
- f)  $\frac{3}{4} + \frac{1}{2} - \frac{1}{6} + 1\frac{1}{3} = 2\frac{5}{12}$
- g)  $q^4 p s^7 \times \frac{p^3 s q r^2}{p^4} \times r.r.p.r.q.q.s.r.s$   
 $= p q^7 r^6 s^{10}$
- h)  $\frac{3}{7} \text{ of } 21^2$   
 $= 189$
- i)  $\frac{2}{3} + \frac{5}{8} + \frac{9}{12} - \frac{1}{7}$   
 $= 1\frac{151}{168}$
- j)  $\sqrt[3]{216} \times 11^2 + 24 \div \sqrt[4]{10000}$   
 $= 6 \times 121 + 24 \div 10 = 728\frac{2}{5}$
- k)  $\frac{27}{35} \times 100 = 77.14 \text{ OR } 77\frac{1}{7}$
- l)  $482^4 - 100 \div 10 = 232\ 314$
3. a)  $10 \text{ ml} \div 1000 \rightarrow 0.01 \text{ liters}$
- b)  $3.6 \times 1000 \times 1000 \rightarrow 3\ 600\ 000 \text{ mm}$
- c)  $50 \text{ gram} \div 1000 \rightarrow 0.05 \text{ kg}$
- d)  $10\ 042 \text{ sent} \div 100 \rightarrow R\ 100.42$
- e)  $4 \text{ ure} \times 60 \times 60 \rightarrow 14\ 400 \text{ sekondes}$
- f)  $0.5 \div 100 \div 1000 \rightarrow 0.000005 \text{ km}$
- g)  $750 \text{ minute} \div 60 \rightarrow 12.5 \text{ ure}$   
 $12 \text{ uur } 30 \text{ minute}$
- h)  $R23.54 \div 100 \rightarrow 2\ 354 \text{ sent}$
- i)  $3 \times 365 \times 24 \times 60 \times 60 \rightarrow \text{sekondes}$   
 $94\ 608\ 000 \text{ sekondes}$
- j)  $1.5 \text{ liters} \times 1000 \rightarrow 1500 \text{ ml}$
4. a)  $3 \text{ werkers} \times R\ 80 \times 4 \text{ ure} = R\ 960$
- b)  $1.5 \text{ ure} \times 12 \text{ tuine} \div 2 = 9 \text{ ure vir } 2 \text{ werkers om die werk te voltooi}$

- c)  $R 45 \times 12 = R 540$   
 $9 \text{ ure} \times 2 \text{ werkers} \times R 80 = R 1 440$   
 $\therefore \text{Totale koste} = R540 + R1 440 = R1 980$
- d)  $((1.5 \text{ ure} \times 80) + R45) + 40\% = R231$

5. a)  $\frac{9}{19} \times 100 = 47.37 \%$                       b)  $\frac{50-24}{50} \times 100 = 52 \%$   
 c)  $\frac{7}{43} \times 100 = 16.28 \%$                       d)  $\frac{26}{40} \times 100 = 65\%$   
 e)  $\frac{158-146}{158} \times 100 = 7.59 \%$                       f)  $\frac{21}{24} \times 100 = 87.5 \%$   
 g)  $\frac{25-14}{25} \times 100 = 44 \%$                       h)  $\frac{18-10}{18} \times 100 = 44.44 \%$

6. a)  $R 2.88 \times 6 = R 17.28$                       b)  $R 8.50 \times 4 = R 34.00$   
 c)  $R 17.00 \div 4 = R 4.25$                       d)  $R 9.20 \times 8 = R 73.60$   
 e)  $R 10.56 \div 4 = R 2.64$                       f)  $R 122.40 \div 24 = R 5.10$   
 g)  $\frac{12}{1.5} \times R 12.00 = R 96.00$

7. a) *Ure gespandeer op visuele kuns prakties = 3 ure (10 Junie) + 3 ure(14 Junie) + 4 ure 30 min(19 Junie vm) 3 ure 30 min( 19 Junie nm) + 2 ure 30 min(20 Junie) = 16 ure 30 minute gespandeer op visuele kuns prakties*

b)  $300 \text{ punte} \div (3 \times 60) = 1.67 \text{ punte per minuut}$

c)  $\frac{x+y}{180+45} \times 100 = \text{leerders kwartaal punt}$  Aanvaar x = die punt behaal vir vraestel 1  
 $\frac{(x+y)}{225} \times 100$                       y = die punt wat vir vraestel 2 behaal is

d) Totale ure = 2h (Engels V1) + 2h 30 min (Engels V2) + 2h (Engels V3) + 2h (isiZulu V1) + 2h (isiZulu V2) + 2h (wiskunde gelet. V1) + 2h 15 min (wiskunde gelet. V2) + 3 uur (geografie V1) + 1 uur 30 min (geografie V2) + 3 uur (IGO V1) + 3 uur (IGO V2) + 2 uur (RTT Prak ) + 3 uur (RTT teorie) + 1 uur 30 min (LO) = 31 uur 45 minute

e)  $180 \text{ punte} \times \frac{80}{100} = 144 \text{ punte klaar} \therefore 180 - 144 = 36 \text{ punte uitgelos}$