

# SHARP

## Worksheet 3 Memorandum – General calculations

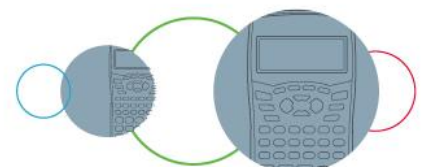
### Mathematical Literacy – Grade 11

1. a)  $\frac{22}{35} \times 100 = 62.9\%$       b)  $\frac{17}{18} \times 100 = 94.4\%$   
c)  $\frac{23}{34} \times 100 = 67.6\%$       d)  $\frac{3000}{24000} \times 100 = 12.5\%$   
e)  $\frac{182}{210} \times 100 = 86.7\%$       f)  $\frac{3}{7} \times 100 = 42.9\%$   
g)  $\frac{1243000}{140350} \times 100 = 88.6\%$       h)  $\frac{14-9}{14} \times 100 = 35.7\%$

2.

PRODUCT	COST PRICE	SELLING PRICE	MARK UP
Flour (2.5 Kg)	<b>R 15.51</b>	R22.50	45 %
White sugar (2 Kg)	R 9.40	R 20.21	<b>112.8 ≈ 113 %</b>
Brown Sugar (2 Kg)	R 13.50	<b>R 20.52</b>	52 %
Baking powder (250 g)	R 70.80 per Kg	R28.32	<b>60.7 % ≈ 61 %</b>
Cocoa powder (250 g)	<b>R 42.11 (250 g)</b>	R28.00 per 125 g	33 %
Vanilla essence (250 ml)	R 33.60	<b>R 37.80</b>	31.25 %

3. a)  $\frac{36}{4} = 9$       b)  $a^2b^3c \times abc^4 \times a.a.b.b.c = a^5b^6c^6$   
c)  $\sqrt{361} = 19$       d)  $17 \times 3 + 15 - 9 \div 3 + 6 = 69$   
e)  $\frac{2}{3} \text{ of } \sqrt{529} = 15\frac{1}{3}$       f)  $\frac{3}{4} + \frac{1}{2} - \frac{1}{6} + 1\frac{1}{3} = 2\frac{5}{12}$   
g)  $\sqrt[3]{216} \times \frac{\sqrt[5]{243}}{\sqrt[3]{8}} = 9$       h)  $R 24 + 30\% = R 31.20$   
i)  $12 \times 2 + (13 - 5) \div 6 \times 2 \times 3 \times \frac{1}{4} = 26$
4. a) 1 concentrate : 5 water  
b)  $45 \text{ ml} \times 5 = 225 \text{ ml water}$   
c)  $45 \text{ ml} + 225 \text{ ml} = 270 \text{ ml}$   
d)  $2.5 \text{ cups concentrate} \times 5 = 12.5 \text{ cups} \therefore \text{the drink will be a little bit too strong}$   
e)  $1,4 \text{ l} \div 7 \times 2 = 400 \text{ ml of concentrate}$
5. a)  $R 57.00 \times 8.5 \text{ hours} = R 484.50$   
b)  $10 \text{ hours} \times 6 \text{ days} = 60 \text{ hours (maximum number of hours of work in 1 week)}$   
 $60 \text{ hours} \times R 57 = R 3 420$



- c)  $R 7410 \div R 570 = 13$  work days  
 (13 work days + 2 days off = 15 days in total,  
 you must count the days he is not allowed to work)
- d)  $R 570 - R 145 = R 425.00$  (the amount of maoney he saves per day)  
 $R 5\ 100 \div R 425 = 12$  work days  
 ( 12 work days + 1 days off because he can only work 6 days out of 7)
6. a)  $2.5$  hours  $\times 60 = 150$  minutes  
 b)  $150$  marks  $\div 150$  minutes = 1 mark per minute
7. a)  $R 11.10 \div 6 = R 1.85$  per egg  
 b)  $R 55.35 \div 450$  g  $\times 100$  g =  $R 12.30$  per 100 g  
 c)  $R 20.00 \div 2.5$  K  $\times 1$  Kg =  $R 8.00$  per Kg  
 d)  $R 15.49 \div 600$ g  $\times 1000$  g =  $R 25.82$  per 1 kg of yogurt  
 e)  $R 18.99 \div 15000$ ml  $\times 250$ ml =  $R 3.17$
8. a)  $17$  m  $\div 1000 = 0.017$  Km  
 b)  $R 450.89 \times 100 = 45\ 089$  cents  
 c)  $22$  days  $\times 24 = 528$  hours  
 d)  $300$  months  $\div 12 = 25$  years  
 e)  $4\ 500$  seconds  $\div 60 \div 60 = 1.25$  hours  
 f)  $0.4$  grams  $\div 1000 = 0.0004$  Kg  
 g)  $200$  l  $\times 1000 = 200\ 000$  ml  
 h)  $5$  weeks  $\times 7 \times 24 = 840$  hours

