

Prelim P2 MEMO

- 1.1 $R150 \times 12 = R1800$ 3 L3 1-7d) Tax = $33840 + (26\% \times 31780)$
 = $42102,80$
- 1.2a $R450 \div 15 = R30$ 2 L2
 b $R300 - R150 = R150$ $42102,80 - 13500 = 28602,80$
 $R150 \div 15 = R10$ 3 L2 = $R21195,80$
- 1.3a $R30 + (40\% \times 30) \times \text{no. of necklaces}$ $21195,80 \div 12 = R1766,32$
 $T1 = R42 \times \text{no. of necklaces}$ 3 L3 \therefore lower ✓ 5 L4
- b Monthly Expense
 = $R150 + R10 \times \text{no. of necklaces}$ 3 L2
- c $T1 = R42 \times 5$
 = $R210$
 $TE = R150 + R10 \times 5$
 = $R200$
 Profit 4 L4
- 1.4a Price has increased every year 2 L4
 b $R24180 \times 1,073 = R26,61$
 $R26,61 \times 1,06 = R28,21$
 $R28,21 \times 1,123 = R31,68$ 4 L3
- 1.5a $R2500 \times 1,17\% = R42,50$
 $\therefore R45$ min charge
 $R2500 - R45 = R2455$
 $2455 \div 1,22 = P2012,30$ 6 L3
- 1.6a Phones are only used during working hours (peak-time) 2 L4
 b Package 2 \rightarrow fixed cost of $R150$ 2 L4
 c constant difference 2 L4
- 1.7a Pensioners; don't always earn a big income 2 L4
 b Redistribute wealth, they can afford it 2 L4
 c $16632 \times 12 = R199584$ $36851,84 - 13500$
 Tax: $33840 + (26\% \times 11584)$ = $23351,84$ 6 L3
 = $R36851,84$ $23351,84 \div 12 = R1945,99$

Q2.1a $d = 30\text{cm}$; $r = 15\text{cm}$

area = πr^2

= 3.14×15^2

= 706.5cm^2

706.5×6

= 4239cm^2

4 L3

b $15 \times 4 = 60\text{cm}$

circ. = $2\pi r$

= $2 \times 3.14 \times 60$

= 376.8cm

2 L3

c $376.8\text{cm} \div 4.71\text{cm}$

= 80 segments

3 L3

d 8 inches 14ft 8 inches

14×12

168 inches

$168 \times 2.54 + 8 \times 2.54$

= 447.04cm

$\therefore 4.5\text{m}$ is enough

4 L4

2.2a $V = \frac{1}{2} \times 0.35 \times 2.5 \times 8$

= 3.5m^3

4 L3

b irrigation purposes;
plant easier

2 L4

c $7500\text{m}^3 \times 0.000001\text{m}$

= 0.0075m^3

3 L2

d $V = 0.02 \times 8 \times 2.5\text{m}$

= 0.4m^3

Bags: $0.4 \div 0.0075$

= 53.33

≈ 54 bags

6 L3

Q3.1a) $4\text{cm} : 8\text{m}$

$1\text{cm} : 2\text{m}$

$1 : 200$

4 L2

b) $2\text{cm} \times 200$

= 400cm

= 4m

3 L3

3.2a) $\frac{4.9}{1.5} \times 1 = 3.27\text{m}$

$1.7 + 1.7 + 0.5 + 0.5 = 4.6\text{m}$

\therefore only one car will fit

5 L4

b) Enter bedroom 3 through bedroom 2

Access to shower through main rm

No front door (any two)

4 L4

3.3a) $8,70$

2 L2

b) $237\text{c} \times 200$

= 47400

= $R474$

3 L3

c) $R474 + (R1145 \times 200)$

= $R764$

(3) L3

d) More fuel consumption

expensive service/repair

2 L4

Q4.1a $\frac{17}{31} \times 100 = 54,84\%$ 3 L2

b $\frac{112}{219}$ vs $\frac{107}{219}$

51% vs 49%

NO, not big difference 3 L4

c Cape Town; more games won when batting first 2 L4

Q5.1 A = 9

B = 60 4 L2

5.2 $2550 + (2550 \times 3) = 10200$ 3 L2

5.3 a $\frac{58 + 62}{2} = 60$ 2 L2

b $\frac{529}{9} = 58,78\%$ 3 L2

c $Q_1 = 48$

$Q_3 = 72$

IQR = $72 - 48 = 24$ 4 L2

d Higher mean

Lowest mark is higher 4 L4

5.4 a $6376 + 918 + 1468 + 390 = 9152$ 2 L2

b $\frac{918}{9152} \times 100 = 10,03\%$ 2 L3

c Do fitness in Phys Ed. Healthy tuck shop 2 L4

d BMI 2 L4

5.5 a School Holiday & Festive season 2 L4

b $500 + 1000 + 1500 = 3000$ 2 L3

c $[R150 - (R150 \times 40\%)] \times 1500 = R135000$

$R150 \times 1000 = R150000$

\therefore more from non-pensioners 5 L4