



Education and Sport Development

Department of Education and Sport Development
 Departement van Onderwys en Sport Ontwikkeling
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NORTH WEST PROVINCE

**NATIONAL
 SENIOR CERTIFICATE**

GRADE 11

MATHEMATICAL LITERACY P1

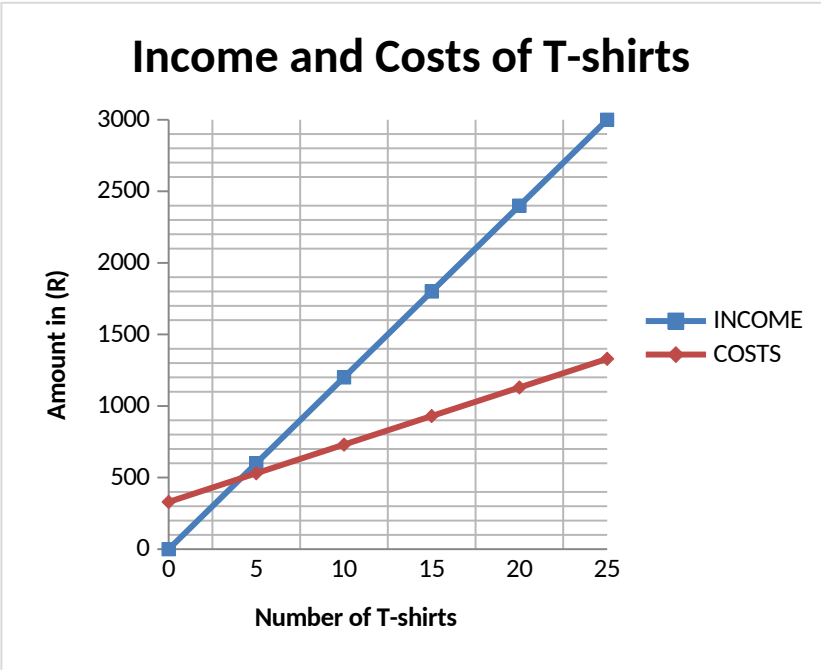
JUNE 2017

MEMORANDUM

MARKS: 75

| Symbol | Explanation |
|---------------|--|
| M | Method |
| CA | Continuous accuracy |
| A | Accuracy |
| C | Conversion |
| S | Simplification |
| RT/RG/RM | Read from Table / Read from graph/ Read from Map |
| SF | Substitution in formula |
| O | Opinion/Example / Deduction/conclusion |
| P | Penalise for example no units / incorrect rounding etc |
| R | Rounding |
| J | Justification/ Motivation/ Supply a Reason |
| F | Formula |

| Question 1 | | [32] | EXPLANATION | TL |
|------------|---|------|---|----|
| 1.1.1 | $R9\,400,00 + R1\,500,00$ $= R10\,900,00$ ✓ | | 1M Addition 1Answer (2) | 1 |
| 1.1.2 | Fixed expenses Rent, Car repayment, Insurance, Magazine subscription and Medical contribution ✓✓ | | 2 Reading from the table (2) | 1 |
| 1.1.3 | Balance = Income – Expenses $R\,10\,900 - R\,10\,701,15$ $= R198,85$ ✓ She will not have enough money left ✓ | | 1M Subtraction 1 Answer 1Conclusion (3) | 3 |
| 1.1.4 | Magazine subscription, entertainment, groceries, cosmetics, electricity, petrol, insurance, entertainment, ✓✓ | | 1Answer 1 Answer (2) | 1 |
| 1.1.5 | $\frac{R\,999}{R\,10\,900} \times 100\%$ $= 9,17\%$ ✓ | | 2Method of diving 1Multiplying by 100% 1Answer (3) | 1 |
| 1.2.1 | Income = $120 \times n$ ✓ ✓ | | 2Formula (2) | 2 |
| 1.2.2 | Total costs = $R(40 \times 50)$ + $R330$ $= R2\,300,00$ ✓ | | 2Substitution 1Answer (3) | 1 |
| 1.2.3 | Total income = $R120 \times 50$ $= R6\,000,00$ ✓ | | 1Substution 1Answer (2) | 1 |
| 1.2.4 | Profit = Income – Costs ✓ $= R6\,000,00 - R2\,300,00$ $= R3\,700,00$ ✓ | | (3) | 2 |
| | | | | |

| | | | |
|------------------------|---|--|------------|
| <p>1.3.1</p> | <p>Graph</p>  | <p>Cost graph 1M (0, 330) 1M labelling 1M joining 1M any correct point</p> <p>Income graph 1M (0,0) 1M labelling 1M joining 1M any correct point</p> | <p>(8)</p> |
| <p>1.3.2</p> | <p>5 t-shirts ✓✓</p> | <p>2 Answer</p> | <p>(2)</p> |
| <p>Question 2 [18]</p> | | | |
| <p>2.1.1</p> | <p>Thursday ✓✓ Friday ✓✓</p> | <p>2 Reading from the table 2 Reading from the table (4)</p> | <p>1</p> |
| <p>2.1.2</p> | <p>Mathematics 3 periods ✓ 45 × 3 = 135 ✓ minutes Accounting 1 period ✓ = 45 minutes Total time spent = 135 + 45 ✓ = 180 minutes ✓</p> | <p>1 Reading from the table 1 Multiplication 1 Reading from the table 1 addition 1 Answer (5)</p> | <p>2</p> |
| <p>2.2.1</p> | <p>Volume of a cylinder = $\pi r^2 \times h$ $3,142 \times (0,8m)^2 \times 1,6m$ ✓ $3,22m^3$ ✓ $= 3,22 kl$ ✓</p> | <p>1 substitution 1 Radius 1 Answer 1 Conversio (4)</p> | <p>3</p> |
| <p>2.2.2</p> | <p>SA of a cylinder = $2 \pi r^2 + 2 \pi rh$ $= 2 \times 3,142 \times (0,8m)^2 + 2 \times 3,142 \times 0,8m \times 1,6m$ $= 4,0217m^2$ ✓ + $8,04352m^2$ ✓ $= 12,07m^2$ ✓</p> | <p>2 substitution 1 Radius 1 Addition of two values 1 Answer (5)</p> | <p>2</p> |
| <p>Question 3 [14]</p> | | | |
| <p>3.1</p> | <p>R8 000,00 ✓✓</p> | <p>2 Reading from the table</p> | <p>2</p> |
| <p>3.2</p> | <p>R700, 00 ✓✓</p> | <p>2 Reading from the table</p> | <p>2</p> |
| | | <p>(2)</p> | |

| | | | |
|------------|---|--|---|
| 3.3 | NO. ✓ One should earn atleast R2 500, 00 to qualify ✓✓ | 2 Conclusion (3) | 1 |
| 3.4 | $R355 \times 12$ $= R4\,260,00$ ✓ | 1 Reading R355 from table 1 Multiplying by 12 1 Answer (3) | 1 |
| 3.5 | Interest for the 1 st year $R3\,000,00 \times \frac{18}{100}$ ✓ $= R540,00$ ✓ Interest over 3 years $R540,00 \times 3$ $= R1\,620,00$ ✓ | 1 Multiplication 1 Answer 1 Multiplying by 3 1 Answer (4) | 3 |
| Question 4 | | [11] | |
| 4.1 | The distance of the call ✓ The duration of the call ✓ | 2M (2) | 1 |
| 4.2 | Cost of call $= \text{Fixed charge} + (\text{Rand per second} \times \text{number of seconds})$ $R0,570 + (R0,00700) \times 1000$ ✓ $R0,570 + R7$ ✓ $= R7,57$ ✓ | 1 Substitution 1 Simplification 1 Answer (3) | 2 |
| 4.3 | $= \frac{1000}{60}$ 16,66 ✓ minutes ≈ 17 minutes ✓ | 1 Conversion 1 Simplification 1 Answer (3) | 1 |
| 4.4 | $\text{£}1 = R17,17$ $\frac{R25\,000}{R17,17}$ ✓✓ = $\text{£}1\,456,03$ ✓ | 2 Substitution 1 Answer (3) | 1 |
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