Education and Sport Development

Department of Education and Sport Development
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NORTH WEST PROVINCE

NATIONAL SENIOR CERTIFICATE

GRADE 11

MATHEMATICAL LITERACY PAPER 1
JUNE EXAMINATION 2018

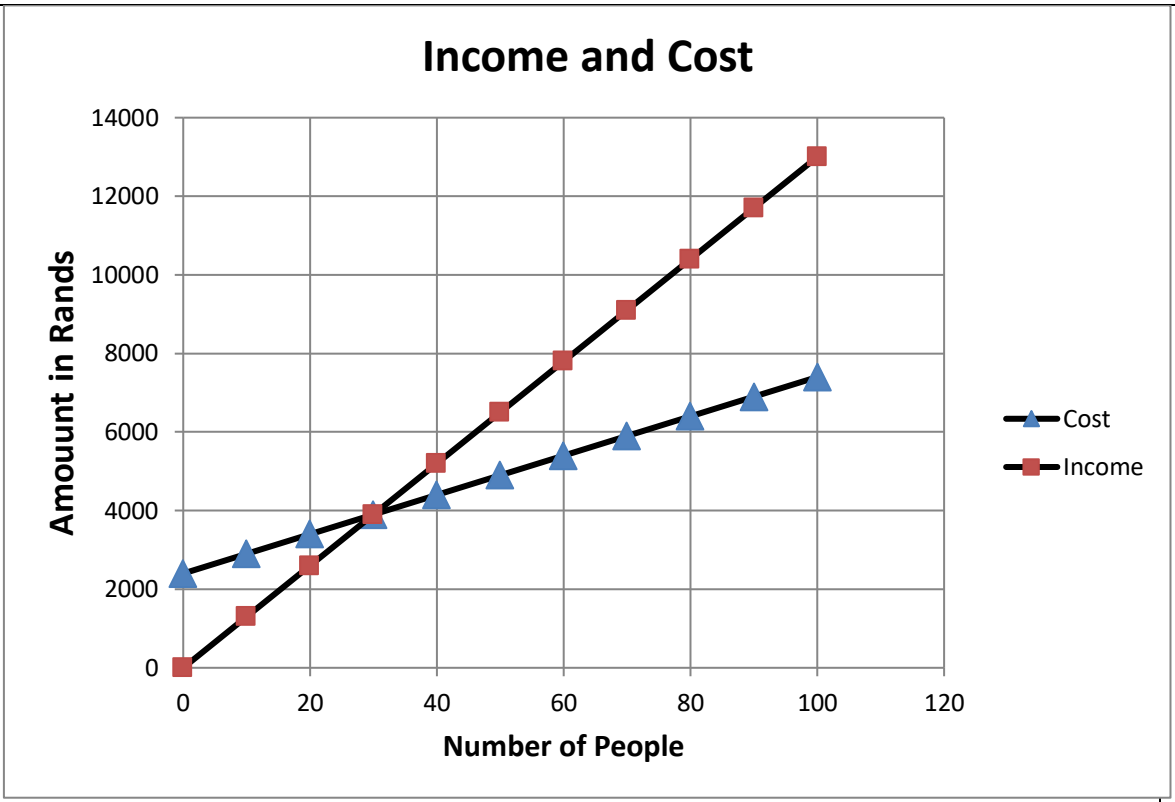
MARKING GUIDELINE

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
NPR	No penalty for rounding OR ommiting units
AO	Answer only

QUESTION 1 [13]			TL
1.1.1	Mass $= \frac{500}{1000}$ ✓ = 0,5kg✓	1M division 1 Answer (2)	1
1.1.2	$Oil\ needed = \frac{2}{3} \times 250$✓ = 166,67 ✓ = 167 ml oil needed✓	1Mmultiplying 1Answer 1Rounding (3)	1
1.1.3	Total muffins =12×2✓ = 24✓	1Multipying 1Answer (2)	1
1.2.1	0 to 1 hour✓ Sundays and public holidays✓	2 Answer (2)	1
1.2.2	Total time = 13: 25 – 08: 45 ✓ = 4 hours 40 minutes✓	1Subtraction 1Answer (2)	1
1.2.3	Amount paid =R6,00 ✓✓	2Anwser (2)	1

QUESTION 2 [16]			
2.1	Total Cost = R 2 400 × R 50, 00 + n, where n is the number of people attending the conference. ✓✓	2 Answer (2)	2
2.2	A= R2 400 + 50 × 20 ✓ = R2 400 +R 1000 = R3 400 ✓	1Substitution 1Answer (2)	2
2.3	I = 130× n 10 400 = 130× n n = 80	1Substitution 1Answer (2)	2



1M heading
1M labelling both axis
1M (0,0)
1M(100, 13 000)
1M (0, 2 400)
1M(100,7 400)
2M joining the points
1M labelling both graphs

(8)

2.5	30 Tickets ✓✓	2A answer (2)	2
QUESTION 3 [23]			
3.1.1	R1 000, 61✓✓	2RT (2)	1
3.12	R2 00,00 ✓✓	2RT (2)	1
3.1.3	Life style magazine fee✓✓	2A Answer (2)	1
3.1.4	$interest\ rate = \frac{R23,73}{R1\ 000,61} \times 100$✓ = 2,371553352% =2,38%✓	1substitution 1A NPR (2)	2
3.2	$\frac{12\%}{12\%} = 1\%$ Per month✓ $first\ month = (\frac{1}{100} \times R13500) + ,R13500, 00$✓	1Conversion 1Substitution 1A answer 1A answer	

	= R13 635,00 ✓ $second\ month = (\frac{1}{100} \times \text{R13 635}) + \text{R13 635, 00}$ = R13 771,35 ✓ Third month = $(\frac{1}{100} \times \text{R13 771,35}) + \text{R13 771, 35}$ = R13 909,02 ✓ OR First month = 1,01 × R13 500✓ = R13 635 ✓ Second month = 1,01 × R13 635 = R13 771,35✓ Third month = 1,01 × R13 771,35 = R13 909,02 ✓ ✓	1A answer (5)	3
3.3.1	6kl = 0✓ 6kl = R8,04× 6 = R48,24✓ 6kl = R10,55× 6 = R63,30 6kl = R12,21× 6 = R73,26 3kl = R13,95× 3 = R41,85✓ Total paid = R48,24+ R63,30 + R73,26 + R41,85✓ = R226,65✓	1A answer 1Method 1A answer 1A answer 1A answer (5)	2
3.3.2	New charges = $\frac{17}{100}$ × R44,82 + R44,82✓ = R52,44✓	1Method 1Answer (2)	2
3.4	Earning in other country = $\frac{R25000}{16,93}$ ✓✓ = £1476,67✓	1 numerator 1denominator 1A answer (3)	1
QUESTION 4 **[23]**			
4.1.1	Radius = $\frac{150}{2}$ ✓ = 75cm✓	1Dividing 1A answer (2)	2
4.1.2	Volume = πr^2h V = 3,142 × $(75cm)^2$✓ × 250✓cm V = 4418437,5 cm^3 ✓ 1000cm^3= 1litre V = $\frac{4418437,5}{1000}$ V = 4418,4375✓ V = 4418,43litres✓	1Conversion 1Substitution 1A answer 1A answer 1Rounding (5)	3

4.1.3	H = 2,5m Radius = $\frac{75}{100}$ = 0,75m✓ Surface area = 2πr(r + h) = 2 × 3,142 × 0,75(0,75 + 2,5) m^2✓ = 2 × 3,142 × 0,75(3,25) m^2 = 15,31725 m^2 ✓ =15,32m^2✓	1Radius 1Substitution 1A answer 1units (4)	3
4.2.1	8 Medical stations ✓✓ 23 Refreshment stations✓✓	2A answer 2A answer (4)	1
4.2.2	44 kilometres ✓✓	2A answer (2)	1
4.2.3	University of Cape town✓✓	2A answer (2)	1
4.2.4	Speed = $\frac{distane}{time}$ Speed = $\frac{56}{3,25✓}$ ✓ Speed = 17,23✓ km/h✓	1Substitution 1 Conversion 1A answer 1Unit (4)	3