Grade 11 Mathematical Literacy: Memorandum Paper 1

1.1.1 $2\frac{1}{2} \times 60 = 150$ minutes ✔ 1

1.1.2 Rate
= 100 ÷ 150 ✔
= 0,67 marks per minute ✔ OR
$1\frac{1}{2}$ minutes/mark 2

1.1.3 Marks to be completed in 15 minutes
= 0,67 ×15 ✔
= 10 marks ✔
⇒ should be on question 1.4 ✔
OR
Marks to be completed in 15 minutes
= 15 ÷ $1\frac{1}{2}$ ✔
= 10 marks ✔
⇒ should be on question 1.4 ✔ 3

1.2.1 410 ✔ 1

1.2.2 9 ✔ ✔ 2

1.2.3 10 ✔ 1

1.3.1 49 ÷ 11= 4, 45 ✔
OR
4×11= 44 ✔
⇒ maximum number of soccer teams is 4 ✔ 2

1.3.2 Total number of Grade 11 learners
= (1+3)×49 ✔
= 196 learners ✔ 2

1.4 8% × 4
= 0,5 hours ✔
⇒ they now practice for 4,5 hours ✔ 2

1.5 (50 ÷ 196) × 100 ✔
= 25,5 % ✔ 2

1.6 Discount
= 20% × 180
= R36 ✔
⇒ new price is 180 – 36 = R144 ✔

1.7 Cost of bananas
= 0,4 × 5,95 ✔
= R2,38 ✔ 2

1.8 Accept any mass (weight) greater than 59,6kg and less than 59,8kg ✔ ✔ 2

2.1 Date = 13 July 2007 ✔
Time = 13:06 ✔ 2

2.2 With an asterisk OR star next to the price. ✔ 1

2.3 There are 6 items for on the till slip. ✔ 1

2.4 The rounding entry indicates the amount of money deducted so as to round off the total to a multiple of 5 cents. ✔
This is necessary because there is no coin with a value less than 5 cents. ✔ 2

2.5 R39,75 ✔
Reason: The R39,79 total is rounded down by R0,04 to R39,75 ✔ OR
Reason: R10,25 change is received after the customer pays R50. ✔ 2

3.1 R2,85 ✔ 1

3.2 Cost of call
= 2,75 × 3 ✔
= R8,25 ✔ 2

3.3 Length of call
= 24,40 ÷ 2,20 ✔ ✔
= 11 minutes ✔ 3

3.4 Off-peak tariff = R1,12 ✔
Cost = 11min × R1,12
= R12,32 ✔
She would have saved:
R24,40 − R12,32 = R12,08 ✔ 3

4.1 Vol = 3,14 × $3,5^2$ × 10,5 ✔ ✔
= 403,9cm³ ✔ 3

4.2 Breadth of label = 10,5cm ✔
Length of label = 2 × 3,14 × 3,5 ✔
= 21,98cm ✔
The dimensions of the label are 10,5cm by 21,98cm 3

4.3 75cm ÷ 21,98 = 3,14 ✔
⇒ this means you can fit in 3 labels on this side. ✔
65cm ÷ 10,5 = 6,19 ✔
⇒ this means you can fit in 6 labels on this side. ✔
Number of label = 3 × 6
= 18 labels ✔ 5

5.1 4 %

5.2 Percentage of females = 51 + 9 = 60% ✔
⇒ Number of females
= 60% × 2435 ✔
= 1 461 females ✔ 3

5.3 Total number of males
= 2 432 – 1 459 = 973 ✔
Number of males who are HIV positive
= 4% × 2432
= 97 males ✔
⇒ Percentage of males who are HIV positive = 97 ÷ 973 × 100 = 10% ✔ ✔
OR
Percentage of males = 100 – 60 = 40% ✔ ✔
⇒ Percentage of males who are HIV positive = 4 ÷ 40 × 100 = 10 % ✔ ✔ 4

6.1 To break even, profit = 0
⇒ I = C
⇒ $4x = x + 1\,200$ ✔
⇒ $3x = 1\,200$ ✔
⇒ $x = 400$
⇒ The company must produce 400 soccer balls in order to break even. ✔ 3

6.2 On the next page

6.3 On the graph on the next page ✔ 1

6.4 profit = Income – cost
= 4 × 905 – (905 + 1200) ✔
= R1515 ✔ 2

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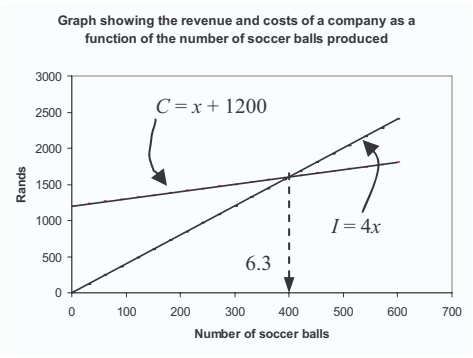
6.2



✔ heading
✔ ✔ axis labels
✔ $C = x+1200$ line
✔ $R = 4x$ line 5

7.1 The 30 to 34 year old age group. ✔ 1

7.2 The 20 to 24 year old age group and the 40 to 44 year old age groups had the same HIV prevalence. ✔ ✔ 2

7.3 Amongst the 25 to 29 year old age group. ✔ 1

7.4 13% × 132 ✔ ✔
= 17 people ✔ 3

7.5 HIV prevalence in females = 33,5% ✔
HIV prevalence in males
= 44,5% – 33,5% ✔
= 11% ✔
⇒ HIV prevalence was about 22,5% higher in females aged between 25 and 29, than in males. ✔ 4

8.1 $A^2 = 3{,}000^2 + 1{,}200$ ✔ ✔ ⇒ A=3,606m ✔ 3

8.2 The instrument used to measure the dimensions was probably a tape measure, which measures accurately to the nearest millimeter. ✔
When working with meters, three decimal places *is* a millimeter, because a millimeter is one thousandth of a meter. ✔ 2

8.3.1 Surface area
= 6,000 × 10,000 ✔ ✔
= 60,000m^2 ✔ 3

8.3.2 150mm ≡ (150 ÷1000)m = 0,150m ✔ 1

8.3.3 Volume = area of base × height
= 60,000 × 0,150 ✔ ✔
= 9,000m^2 ✔ 3

8.3.4 Number of bags of cement
= 9,000 × 5 ✔
= 45 ✔ 2

8.3.5 Cost of cement
= 45 × R55,99 ✔
=R2 519,55 ✔ 2

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