LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

GRADE 11

MATHEMATICAL LITERACY

ASSIGNMENT 1
JANUARY 2026

DATE OF ISSUE : 30 JANUARY 2026

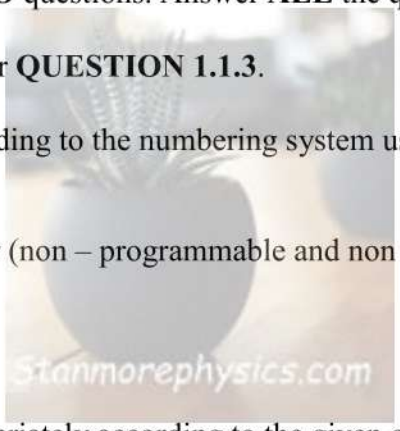
ADMINISTRATION DATE: 06 FEBRUARY 2026

MARKS: 50

This question paper consists of 6 pages and 1 answer sheet

INSTRUCTIONS AND INFORMATION

1. This question paper consists of **TWO** questions. Answer **ALL** the questions.
2. Use **ANSWER SHEET A** to answer **QUESTION 1.1.3**.
3. Number the answers correctly according to the numbering system used in this question paper.
4. You may use an approved calculator (non – programmable and non – graphical), unless stated otherwise.
5. Show ALL calculations clearly.
6. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
7. Indicate units of measurement, where applicable.
8. Maps and diagrams are NOT drawn to scale, unless stated otherwise.
9. Write neatly and legibly.



QUESTION 1

1.1

Mr Khosa has a building contract to build houses for people. He hires builders and labours according to the number of houses he must build. He did a survey on the number of people building a house and the time taken to complete a house.

Table 1: number of people building the house and time taken

No. of builders	1	2	5	8	**A**	20	24
No. of days taken	240	120	48	30	20	12	**B**

Study the table above to answer the questions that follow:

1.1.1 Determine which variable is dependent and which one is independent. (2)

1.1.2 Calculate the values of A and B. (4)

1.1.3 Use TABLE 1 to draw the graph (on answer sheet A) of Mr. Khosa's survey (Indicate all co-ordinates). (6)

1.1.4 State the type of proportion represented in the graph. (2)

1.2

Water is a big problem in South Africa. People are intending to save water while some are investigating how they are billed and if the billing is correctly calculated.

Below is the water tariff for Greater Letaba Municipality during 2018 – 2019.

TABLE 2: WATER TARIFF FOR GREATER LETABA DURING 2018 - 2019

From	To	Rand per kl excluding VAT	Rand per kl including VAT
>0.0 kl	6.0 kl	R0.0	R0.0
>6.0 kl	10.5 kl	R7.60	R8.66
>10.5 kl	20.0 kl	R11.61	R13.24
>20.0 kl	35.0 kl	R17.20	**P**
>35.0 kl	50.0 kl	R21.24	R24.22
>50.0 kl		**Q**	R31.95

[www.municipalityblog.com]

Use the information above to answer the questions that follow.

1.2.1 Determine the values of P and Q respectively. (4)

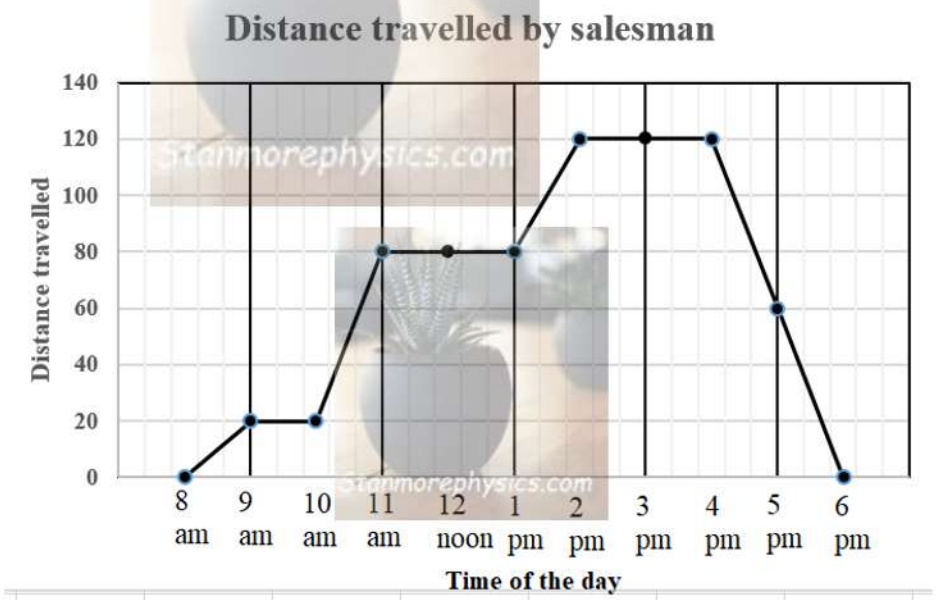
1.2.2 Modjadji uses 19.5 kl of water per month; will she be paying for the full 19.5 kl? Motivate your answer. (2)

1.2.3 Hence, calculate how much Modjadji will pay for 19.5 kl of water including VAT. (4)

[24]

QUESTION 2

2.1 Below is the graph showing the distance travelled by a salesman.



Use the information above to answer the questions that follow.

2.1.1 Determine the time that the salesman left home. (2)

2.1.2 Calculate the distance travelled by the salesman to his first client. (3)

2.1.3 Determine the time the salesman spent at his first client. (2)

2.1.4 Determine the number of clients visited by the salesman per day. (2)

2.1.5 Calculate the kilometres travelled by the salesman from the first client to his second client. (3)

2.1.6 Explain what the salesman did between 4 pm and 6 pm. (2)

2.1.7 Determine the average speed at which the salesman was travelling from 4 pm to 6 pm. You may use the formula: (3)

Average speed = distance ÷ time

2.2 Maru has a greenhouse in which she grows green peppers. She uses the sprinkler system for irrigation. The green peppers are watered for 2 hours and 45 minutes daily and the temperature in the greenhouse is kept constant at 25°C. The clock below shows the time each morning the sprinkler system is switched off.

Use the information above to answer the questions that follow.

2.2.1 Determine the time (in words) the sprinkler system was switched off. (2)

2.2.2 Determine the time the sprinkler system was switched on. (2)

2.2.3 Determine the temperature in Fahrenheit if the required constant temperature is kept at 25°C. (3)

2.2.4 Maru bought 100 m pipe for the sprinkling system to cover a bigger area in the green house. Convert the length of the pipe into cm. (2)

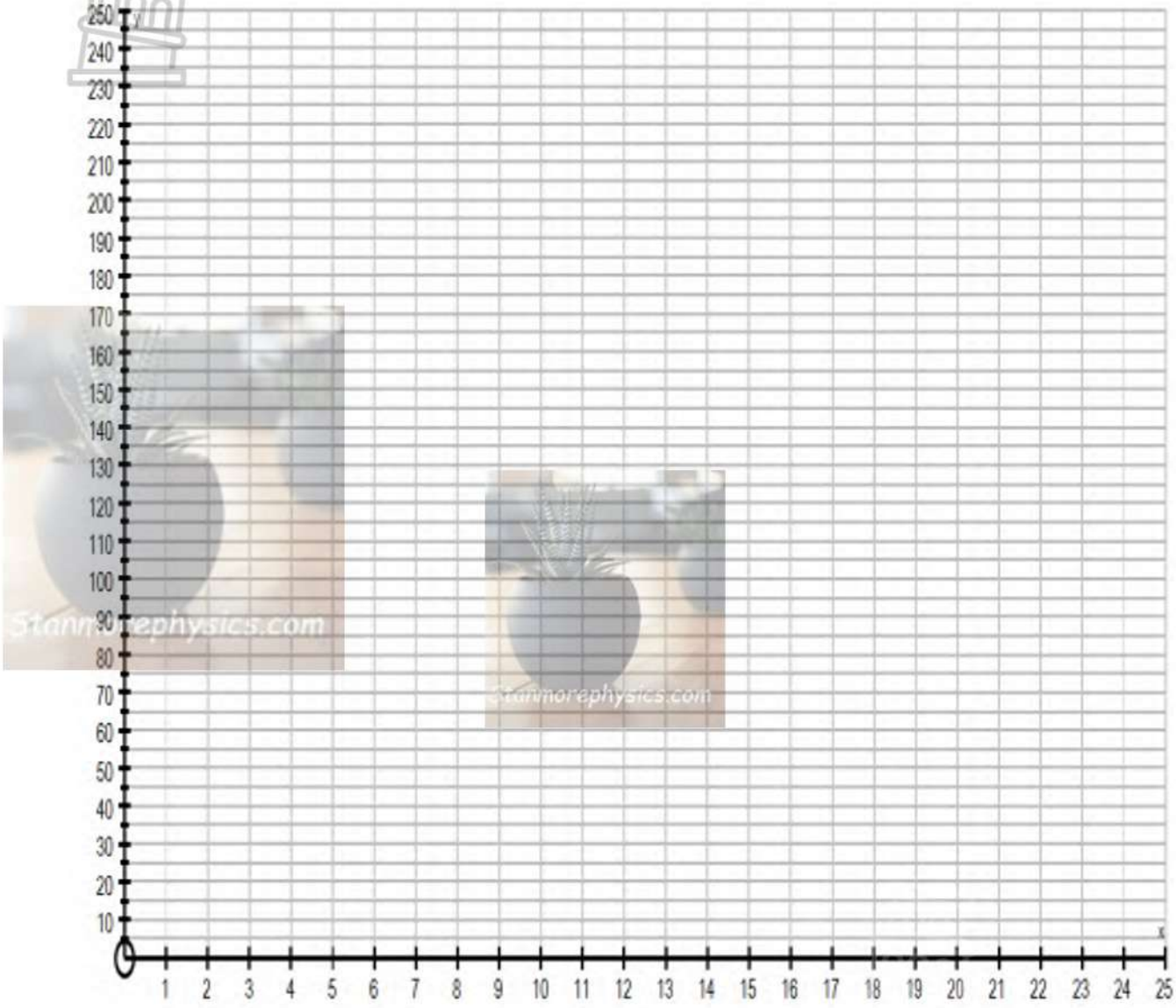
[26]

TOTAL MARKS: 50

NAME OF A LEARNER_____

ANSWER SHEET A

QUESTION 1.1.3



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

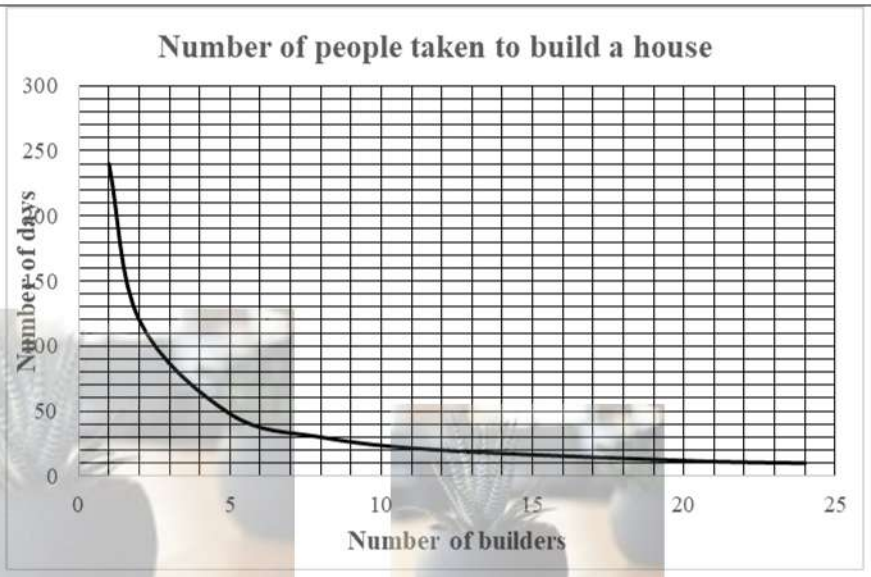
DEPARTMENT OF EDUCATION

GRADE 11

MATHEMATICAL LITERACY ASSIGNMENT MARKING GUIDELINE

Symbol	Explanation
M	Method
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy
C	Conversion
S	Simplification
E	Explanation
RT/RG/RD	Reading from a table/graph/diagram/map
SF	Correct substitution in a formula
O	Opinion/example/reason/deduction
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	Rounding off
J	Justification

This memorandum consists of 3 pages including the cover page

QUESTION 1 [24 MARKS]		
QUES	**SOLUTION**	**EXPLANATION**
1.1.1	Number of builders is an independent variable and Number of days taken is dependent variable. ✓✓	2A explanation (2)
1.1.2	A = $\frac{240}{20}$ ✓ = 12 ✓ B = $\frac{240}{24}$ ✓ = 10✓	2A answer 2A answer (4)
1.1.3		1A for the title of the graph 1A for labelling 2A for the points (1;240) and (10;24) 2A any two correct points (6)
1.1.4	Inverse proportion ✓✓	2A answer (2)
1.2.1	P = R17.20 × 1.15 ✓ = R19.78 ✓ **OR** P = R17.20 + (R17.20 × 0.15) ✓ = R17.20 + 2.58 = R19.78 ✓ Q = $\frac{R31.95}{1.15}$ ✓ = R27.78 ✓	1M multiplying by 1.15 1A correct answer 1M multiplying by 0.15 1A answer (4)
1.2.2	No. ✓She will not pay for the first 16 kl. ✓	1A answer 1O reasoning (2)
1.2.3	Payment for 19.5 kl = (6.0 × 0) + (4.5 × 7.60) + (9 × 11.61) ✓ = R0 + R34.20 + R104.49 ✓ = R138.69 × 1.15 ✓ = R159.49 ✓	1SF 1S simplification 1M multiplying by 1.15 1A correct answer (4)

QUESTION 2 [26 MARKS]		
QUES	**SOLUTION**	**EXPLANATION**
2.1.1	8 am✓✓	2RG (2)
2.1.2	Distance travelled 20 km – 0 km✓✓ = 20 km✓	1SF 1S simplification 1A unit (3)
2.1.3	1 hour✓✓	2RG (2)
2.1.4	3 clients✓✓	2RG (2)
2.1.5	80 km – 20 km✓✓ = 60 km✓	2A MA 1A answer (3)
2.1.6	The salesman travelled back home✓✓	2O opinion (3)
2.1.7	Average speed = distance ÷ time = 120 km ÷ 2 h✓✓ = 60 km/h✓	1SF substitution 1MA correct values 1A answer (3)
2.2.1	Five minutes to twelve✓✓	2A answer (2)
2.2.2	11h56 – 2h45✓ = 09h11✓	1M subtraction 1A answer (2)
2.2.3	$^{o}F = (1,8 \times 25^{o}) + 32^{o}$✓ $= 45^{o} + 32^{o}$✓ $= 77^{o}$✓	1SF substitution 1S simplification 1A correct answer (3)
2.2.4	100 m × 100 ✓ = 10 00 cm✓	1M × by 100 1C conversion (2)