KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 10

MATHEMATICAL LITERACY P2

JUNE EXAMINATION

2025

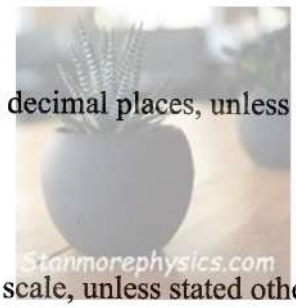
MARKS: 50

TIME: 1 hour

This question paper consists of 6 pages and an addendum with 1 annexure.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. Use ANNEXURE A in the addendum to answer QUESTION 4.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
6. Show ALL calculations clearly.
7. Round off ALL final answers appropriately to two decimal places, unless stated otherwise.
8. Indicate units of measurement, where applicable.
9. Maps and diagrams are NOT necessarily drawn to scale, unless stated otherwise.
10. Write neatly and legibly.



QUESTION 1

1.1 Zenande makes her own porridge every morning before she leaves for school. She needs water, mealie meal, sugar and margarine to make this porridge. The table below shows the ingredients and conversion factors between millilitres (ml) and grams (g) for certain ingredients used in cooking.

Table 1: Conversion table

	Ingredients			
Margarine	0,375g	0,95g	7,5g	18,75g
Mealie meal	3g	6g	45g	120g
Sugar	0,3g	0,75g	6g	15g
Amount of porridge made	**5 ml**	**12,5 ml**	**100 ml**	**250 ml**

Note: 1 cup = 250 ml
1 tablespoon = 12,5 ml
1 teaspoon = 5 ml

[Adapted from www.allrecipes.com

Use the information above to answer the questions that follow.

1.1.1 The porridge has to simmer (cook slowly) on a low heat for $\frac{1}{3}$ of an hour. Write this time in minutes. (2)

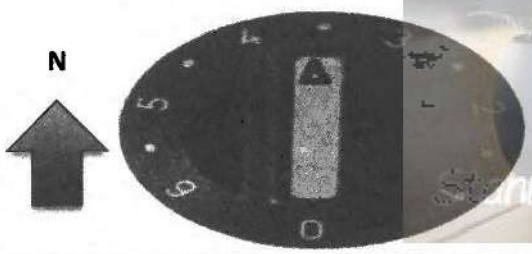
1.1.2 Determine the number of grams of sugar contained in 100 ml of porridge. (2)

1.1.3 Zenande has a 2,5 kg bag of mealie meal. Convert 2,5 kg to grams. (2)

1.1.4 Write as a simplified ratio the amount of margarine to the amount of mealie meal, that will make 100 ml of porridge. (2)

1.1.5 Write down the probability of sugar being one of the ingredients in words. (2)

1.2 The picture below shows the control knob of the stove plate on which Zenande boils the water.



Key:

0 is off
1 is the lowest setting
6 is the highest setting

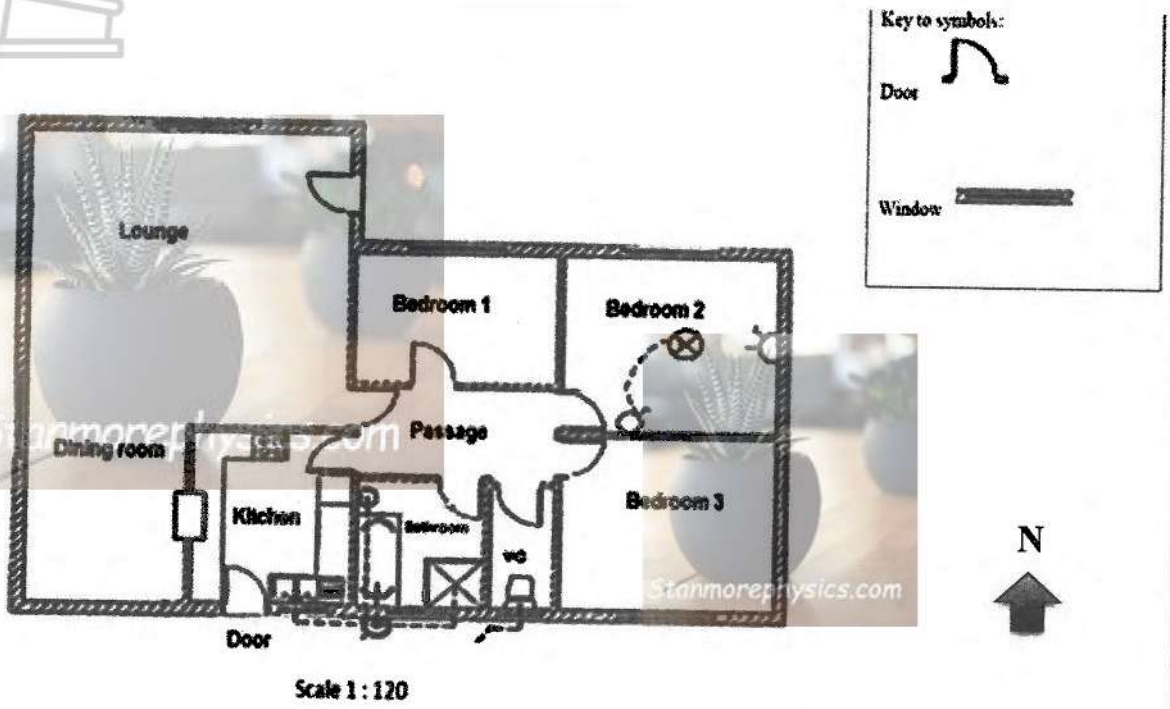
1.2.1 The porridge must simmer (cook slowly) at the heat setting number 2. Give the general direction that the control knob will be pointing to when it is on heat setting number 2? (2)

[12]

QUESTION 2

2. The Mthethwa family bought a new home. The floor plan of the house is shown below. Study the floor plan and answer the questions that follow.

FLOOR PLAN OF THE MTHETHWA FAMILY'S HOME



[Adapted from www.seatingplan.net

Use the diagram and the information above to answer the questions that follow.

2.1 Give the general direction of the dining room from bedroom 1. (2)

2.2 Describe the route a person must take from the lounge to the kitchen. (3)

2.3 Use the **number scale** to calculate the actual distance in metres from bedroom 1 to the bathroom if the measured distance is 3,2 cm. (3)

2.4 Explain why this floor plan is an open plan. (2)

2.5 Discuss the advantages and disadvantages of using the number scale and bar scale respectively. (4)

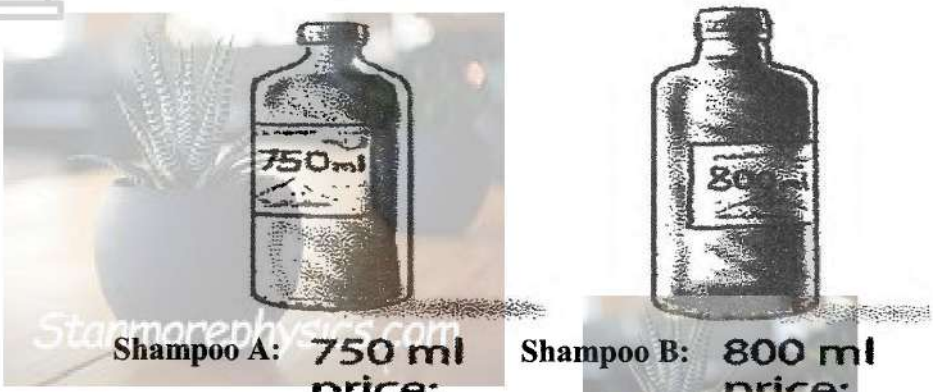
2.6 Which rooms will be exposed to the sun in the morning? Give a reason for your answer. (3)

[17]

QUESTION 3

3.1 Mrs Didiza wants to buy shampoo from Highlands Pharmacy. She needs to decide between the following two different options:

PICTURE OF THE SHAMPOO WITH PRICE



[Adapted from https://www.pexels.com]

Use the information above to answer the questions that follow.

3.1 Which measuring instrument is most appropriate to measure the weight of a shampoo bottle? (2)

3.2 Show that the volume of Shampoo A is 93,75% of Shampoo B. (2)

3.3 Use calculations to show which bottle offers better value for money. (5)

3.4 Mrs Didiza uses 12,5 ml shampoo every day. Calculate the number of days her shampoo will last if she uses bottle B. (3)

[12]

QUESTION 4

4. ANNEXURE A shows a map that Mr and Mrs Mbatha will use as they decide to tour the Midlands Meander.

Use ANNEXURE A to answer the questions that follow.

4.1 Determine the number scale of the map in the form 1: ..... Round off to the nearest million. (3)

4.2 Calculate as the crow flies, the approximate distance between Umhlanga and Greytown by using the number scale in question 4.1 above. (3)

4.3 Mr and Mrs Mbatha will drive from Pietermaritzburg to Mooi River. Describe a route that they could take which will allow them to visit as many places during their journey but not visiting a place more than once. (3)

[9]

TOTAL MARKS: 50

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ADDENDUM

JUNE EXAMINATION

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MARKS: 50

This addendum consists of 2 pages with 1 annexure.

ANNEXURE A

QUESTION 4

MAP OF THE MIDLANDS

[Adapted from www.papershop.blogspot.com]

FINAL

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MARKING GUIDELINES

JUNE EXAMINATION

2025

MARKS: 50

SYMBOL	EXPLANATION
MA	Method with accuracy
MCA	Method with consistent accuracy
CA	Consistent accuracy
A	Accuracy (Answer)
C	Conversion
S	Simplification
RT	Reading from a table/ graph/ diagram
SF	Correct substitution in a formula
O	Opinion/ reason/deduction/example
P	Penalty e.g., for no units, incorrect rounding off, etc.
NPR	No penalty for correct rounding
NPU	No penalty for omitting unit, but wrong unit is penalised
AO	Answer only

This marking guideline consists of 5 pages.

NOTE:

- If a learner answers a question TWICE, only mark the FIRST attempt.
- If a learner has crossed out (cancelled) an attempt to a question and NOT redone the solution, mark the crossed out (cancelled) version.
- Consistent accuracy (CA) applies in ALL aspects of the marking guidelines; however, it stops at the second calculation error.
- If the learner presents extra solution when reading from the graph, table, layout plan and map, then penalise for every extra item presented.
- Rounding is an independent mark.
- General principle of making, if the candidate makes one mistake one mark is deducted.
- A conclusion mark can only be given if relevant calculations precedes it.
- No penalty for rounding (NPR) if the first decimal is correct.
-

QUESTION 1 [12]	**ANSWER ONLY FULL MARKS**		
Q	**Solution**	**Explanation**	**T&L**
1.1.1	Time in minutes $= \frac{1}{3} \times 60$ minutes✓C $= 20$ minutes✓A	1 C correct conversion 1 A correct answer (2)	M L1 E
1.1.2	Number of grams = 6g ✓✓A	2 A correct answer (2)	M L1 E
1.1.3	Number of grams = 2,5 × 1000 ✓C = 2 500g ✓A	1 C correct conversion 1 A correct answer (2)	M L1 E
1.1.4	7,5 : 45 ✓RT 1 : 6 ✓A	1 RT correct values 1 A correct answer (2)	M L1 E
1.1.5	P(sugar) = Certain ✓✓A **OR** P(sugar) = One ✓✓A **OR** P(sugar) = One hundred percent ✓✓A	2 A correct answer 2 A correct answer 2 A correct answer (2)	P L1 M

1.2.1	East ✓✓A **OR** E ✓✓A	2 A correct answer (2)	M L1 M
			[12]

QUESTION 2 [17 MARKS]

Q	Solution	Explanation	T&L
2.1	South West ✓✓A **OR** SW ✓✓A	2 A correct answer (2)	MP L1 M
2.2	Exit the lounge through the door leading to the passage ✓A Turn right, step forward ✓A And turn right then walk into the kitchen ✓A	1 A exit lounge 1 A turn right 1 A destination (3)	MP L2 M
2.3	Actual distance = 3,2 cm × 120 ✓MA = $\frac{384\text{ cm}}{100}$ ✓C = 3,84 m ✓CA	1 MA multiplying with correct scale 1 C dividing by 100 1 CA correct answer (3)	M L3 M
2.4	There is no wall separating the dining room and the lounge ✓✓E	2 E Correct explanation (2)	MP L2 E
2.5	Advantage(s) Number scale is more convenient to use ✓A Bar scale remains accurate even when the map/plan is resized ✓A Disadvantage(s) Number scale is not correct when map/plan is resized ✓A Bar scale requires you to measure the bar segment and the distance on the map/plan ✓A	1 A correct advantage of number scale 1 A correct advantage of bar scale 1 A correct disadvantage of number scale. 1 A correct disadvantage of a bar scale (4)	MP L4 M
2.6	Bedroom 2 ✓RT Bedroom 3 ✓RT The rooms are located on the eastern side of the house.✓O	1 RT bedroom 2 1 RT bedroom 3 1 O correct reason (3)	M L4 E
			[17]

QUESTION 3 [12 MARKS]

Q	Solution	Explanation	T&L
3.1	Kitchen scale/Electronic/Digital scale ✓✓A	2 A correct tool **Accept scale** (2)	M L2 E
3.2	Volume bottle A ✓RT $= \frac{750}{800} \times 100\%$ ✓MA = 93,75%	1RT correct value 1MA percentage concept (2)	M L2 E
3.3	Shampoo A 750ml = R14,94 ✓MA 750 750 1ml = R0,01992 ✓CA Shampoo B 800ml = R15,00 ✓MA 800 800 1ml = R0,01875 ✓A Bottle B✓CA **OR** Shampoo A 750ml = R14,94 ✓MA 14,94 14,94 50,2 ml = R1 ✓A Shampoo B 800ml = R15,00 ✓MA 15,00 R15,00 53,33ml = R1 ✓A Shampoo B ✓CA	1 MA dividing by 750 1 CA correct answer 1 MA dividing by 800 1 A correct answer 1 CA correct choice 1 MA dividing by 14,94 1 A correct answer 1 MA dividing by 15,00 1 A correct answer 1 CA correct choice (5)	M L4 D
3.4	✓RT Number of days = 800 12,5 ✓MA = 64 ✓A	1 RT for 800 1 MA dividing by 12,5 1 A correct answer (3)	M L2 M
			[12]

QUESTION 4 [9 MARKS]			
Q	**Solution**	**Explanation**	**T&L**
4.1	7,5cm = 50km ✓A 7,5cm = 5 000 000cm 7,5cm = 5 000 000 cm ✓C 7,5cm 7,5cm 1 : 666 666,667 1 : 1 000 000✓R **OR** 75mm = 50km ✓A 75mm = 50 000 000mm ✓C 75mm 75mm 1 : 666 666,667 1 : 1 000 000✓R	1 MA correct measurement of bar scale 1 C converting 50km to cm 1 R Rounding 1 MA correct measurement of bar scale 1 C converting 50km to mm 1 R Rounding **Accept 1 mm leeway** (3)	M L3 D
4.2	Distance = 10,5cm× 1 000 000 ✓MCA = 10 500 000 ✓C 100 000 = 105km ✓CA **OR** Distance = 105mm× 1 000 000 ✓MCA = 1 0500 000 ✓C 1000 000 = 105km ✓CA	**CA from 4.1 above** 1 MCA for multiplying by scale 1 C dividing by 100 000 1 CA correct answer 1 MCA for multiplying by scale 1 C dividing by 1000 000 1 CA correct answer **Accept 1 mm leeway** (3)	M L2 M
4.3	From Pietermaritzburg take R103✓A and pass Hilton, Pass Lidgetton✓A Nottingham Road, Rosetta✓A	1 A taking R103 1 A naming first two towns 1 A naming the second two towns (3)	M L3 M
			[9]
		TOTAL MARKS:	**50**