Province of the
EASTERN CAPE
EDUCATION

O.R TAMBO
INLAND DISTRICT

GRADE 10

MATHEMATICAL LITERACY PAPER 2

JUNE 2022

MARKS: 50

TIME: 1 HOUR

This question paper consists of 8 pages including ANNEXURE A.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of THREE questions.

2. Answer ALL the questions.

3. Number the answers correctly according to the numbering system used in this question paper.

4. Show ALL calculations clearly.

5. Write neatly and legibly.

1

QUESTION 1

1.1 Sybil needs the ingredients below to bake the crust of her favourite Steak and Kidney pie for the bazaar.

Ingredients for crust

- **230g butter**
- **0.6 litres of boiling water**
- **12 oz effervescent flour**
- **30 ml cake flour**
Preheat oven to 200 ºC.
Bake for 25 - 30 min until brown.
Note: 1 oz = 28.35 g
   1 litre = 1 000 ml

[Adapted from source:www.Facebook.com/resepte]

1.1.1 Convert 12oz effervescent flour to grams. (2)

1.1.2 If Sybil puts the pie in the oven at 12:15 and lets it bake for the minimum time. What time will she take the pie out of the oven. (2)

1.1.3 If she needs 0, 6 litres of boiling water. How much boiling water is needed in millilitres? (2)

1.1.4 Is the unit for the furnace temperature in metric or in imperial unit? (2)

1.1.5 If one pie cost R15 to make and Sybil gets a profit of R10 on each pie. How many pies did she make if she had R300 after a day of selling pies? (3)

1.2 Sybil found the instrument shown below in the kitchen.
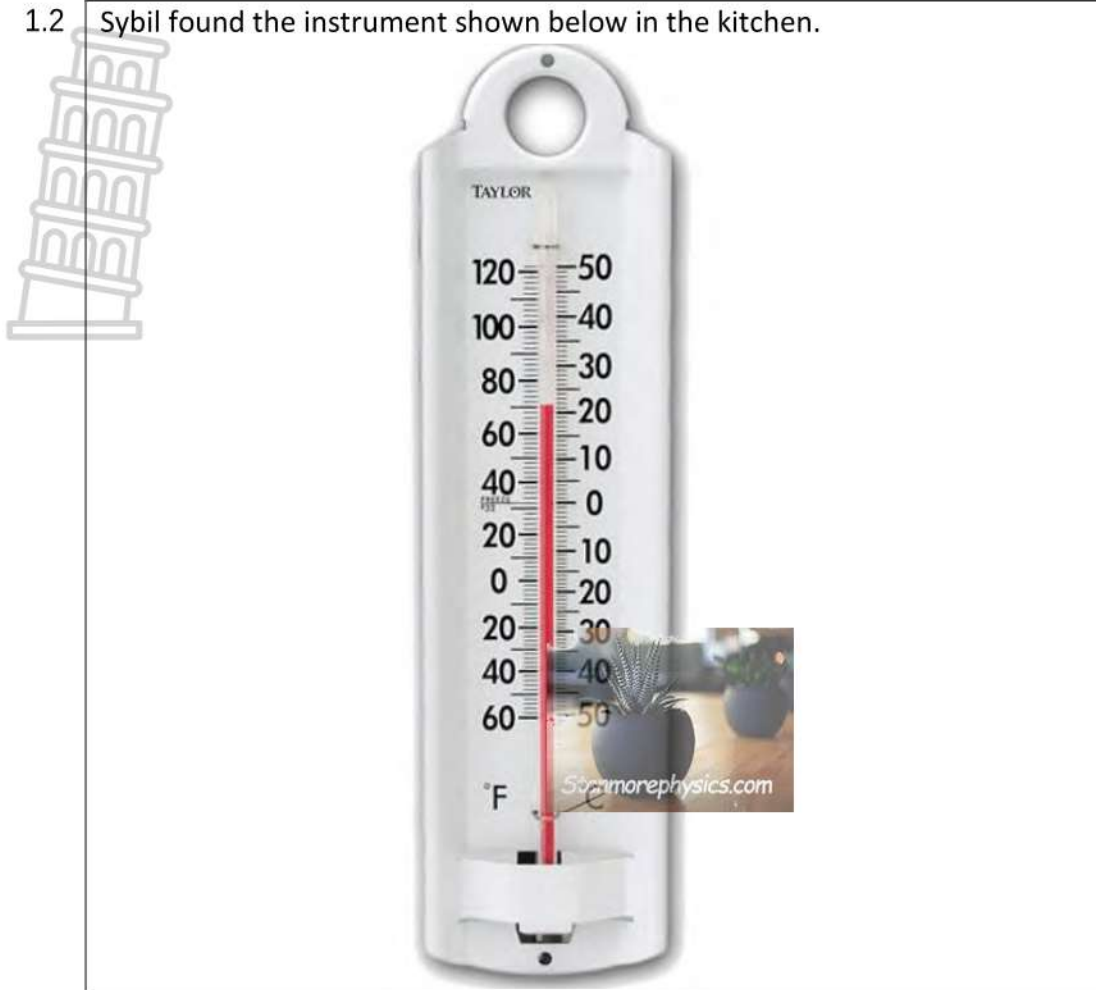
1.2.1 What is the name of the measuring instrument? (2)

1.2.2 What is used to measure? (2)

1.2.3 Give the reading using units indicated on the right. (2)

1.2.4 Verify the reading on the left using the formula. (3)

$$°F = \frac{9}{5}°C + 32°$$

1.3 Jan bought tickets to attend a musical concept at a local stadium. Unfortunately, he could not get the favourite positions that his wife wanted to have a clear view of the musicians.
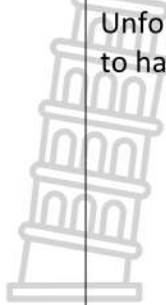
1.3.1   Which stand did Jan bought the tickets for?   (2)

1.3.2   Give a suggestion of people who may occupy the A seats   (2)

1.3.3   During the concept Jan's friend offer them VIP treatment and they moved to occupy seats in front rows. Which seat will it be if they can not have the A seats   (2)

[26]

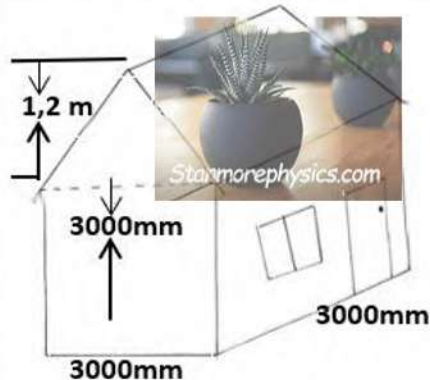Mathematical literacy   (ORTI Term 2 PAPER 2)

QUESTION 2

James, a wendy house contractor, needs to build a wendy house for Mr. Jonas which he wants to use to store his tools. The pictures and diagrams show the dimensions of the wendy house.

Sketch of the wendy house

1,2 m

3000mm

3000mm

3000mm

Dimensions:

Door is 900mm × 2.1m

Window is 1.5m × 1.2m

2.1   Identify the shape of the face with a window and door   (2)

2.2   Show that the length of the house is 3 metres   (2)

[4]

QUESTION 3

John and his girlfriend drive from Outshoorn to Plettenberg Bay to visit his friend.

ANNEXURE A shows a section of a map of the Southern Cape.

3.1   Determine the probability for John and his girlfriend to randomly take a   (2)
       plane from Outshoorn to Plettenberg Bay.

3.2   Name the National roads on which John will drive.   (2)

3.3   John and his girlfriend decided to rest after driving for 130 km from   (3)
       Outshoorn. Write down the name of the town.

3.4   The measured distance (in a straight line) between Outshoorn and Plettenberg
       Bay is 92mm. Determine the scale of the map.

       (Round off your answer to the nearest hundred thousand)
                                                                                      (6)

5

3.5   John departs from George at 13:38 and drives at an average speed of 100 km /h. John calls his friend and says he will be in Plettenberg Bay by 14:41.

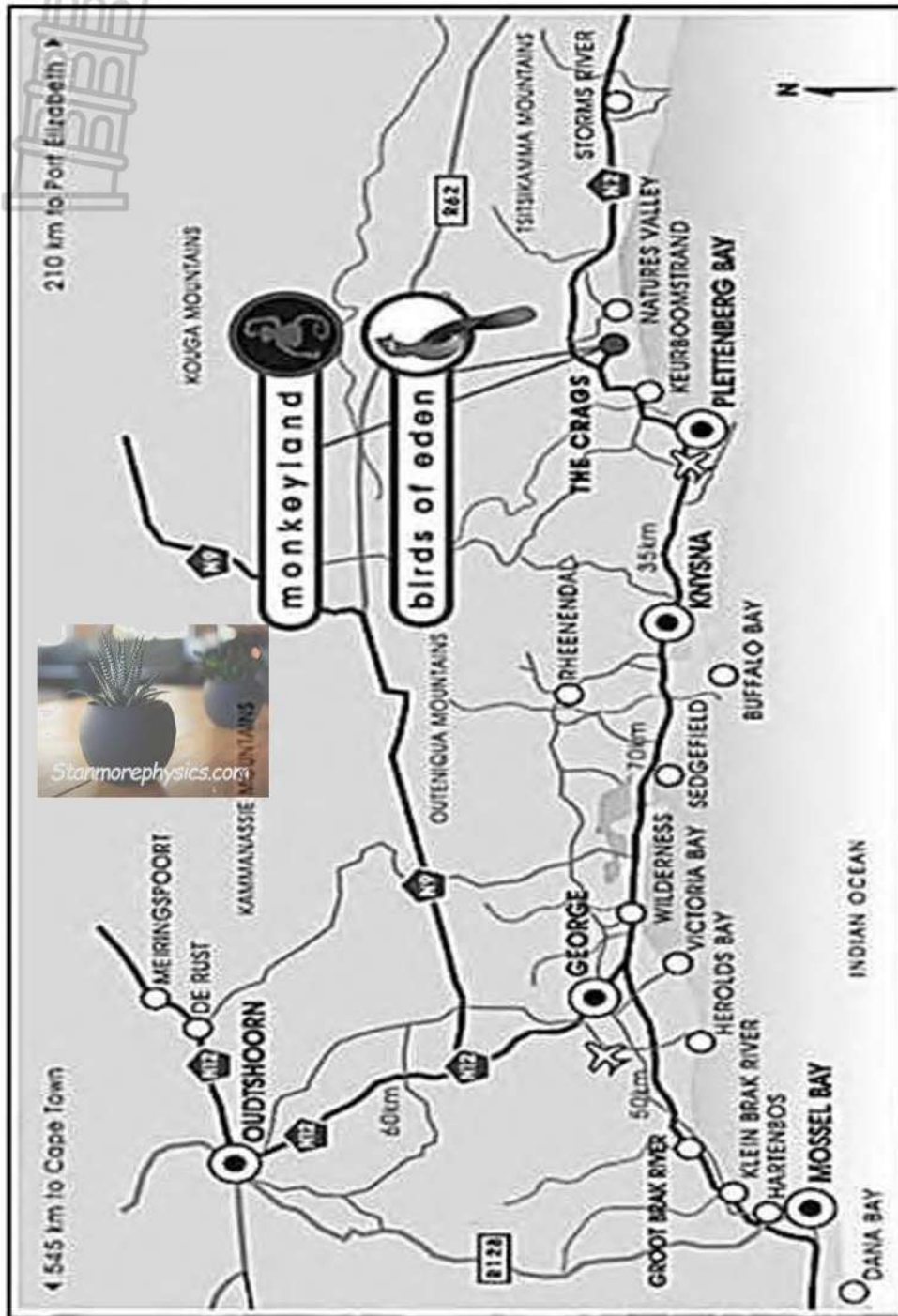Verify with calculations whether his timings are correct.

You can use the following formula: Distance = Speed × Time   (7)

                                                                                          [20]

                                                      Total Marks   **[50]**

ANNEXURE A

QUESTION 3

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O.R TAMBO
INLAND DISTRICT

GRADE 10

MATHEMATICAL LITERACY
PAPER 2
MEMORANDUM

JUNE 2022

MARKS: 50

Codes	Explanation
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy
C	Conversion
D	Define
J	Justification / Reason / Explain
S	Simplification
RT / RD / RG	Reading from a table OR a graph OR a diagram OR a map OR a plan
F	Choosing the correct formula
SF	Substitution in a formula
O	Opinion
P	Penalty, for no units, incorrect rounding-off, etc.
R	Rounding-off
NP	No penalty for rounding-off OR omitting units

This Memorandum consists of 4 pages including the cover page and grid analysis.

QUESTION 1

QNS	SOLUTION	EXPLANATION	MARKS	TL
1.1.1	12 × 28,35 ✓M = 340,2g ✓CA	1M times 28,35 1CA answer in gram	(2)	TL1
1.1.2	12:15 + 25 minutes ✓M = 12:40 ✓CA	1M plus 25minutes 1CA correct time	(2)	TL1
1.1.3	0,6 × 1 000✓C = 600 ml ✓A	1C multiply by 1000 1A answer in millilitre	(2)	TL2
1.1.4	Metric unit ✓✓O	2O correct unit	(2)	TL3
1.1.5	SP =R15+R10 = R25 ✓MA $= \frac{300}{25}$ ✓ $= 12 \, pies$ ✓A	1MA addition 1M division 1A	(3)	TL2
1.2.1	thermometer ✓✓A	2 A correct answer	(2)	
1.2.2	temperature ✓✓A	2 A correct answer	(2)	
1.2.3	21℃ ✓✓A accept [20,5 – 21,5]	2 A correct answer	(2)	
1.2.4	$°F = \frac{9}{5} \times 21°C + 32$✓ $°F = 69,8°C.$ ✓S✓A accept [69 – 71]	1 SF substitution 1 S simplification 1 A answer	(3)	
1.3.1	West stand ✓✓A	2A	(2)	
1.3.2	VIP, musicians, security✓✓A	2A any correct	(2)	
1.3.3	B3 /B2/B4✓✓A	2 A correct answer	(2)	
			[22]	

QUESTION 2

QNS	SOLUTION	EXPLANATION	MARKS	TL
2.1	Square✓✓A	2A answer	(2)	
2.2	3 000 ÷ 1 000 ✓C = 3 m✓A	1C conversion 1A answer in m	(2)	
			[4]	

QUESTION 3

QNS	SOLUTION	EXPLANATION	MARKS	TL
3.1	$\frac{0}{2}$✓A✓A	1A numerator 1A Denominator	(2)	
3.2	N12✓A N2 ✓A	1A for N12 1A for N2	(2)	
3.3	60 + 70 = 130km✓A✓A Knysna ✓A	2 M addition 1 A answer	(3)	
3.4	60 + 70 + 35 = 165 Km ✓ 92 mm : 165 km ✓ 92 : 165 × 1 000 000 ✓C 92 : 165 000 000 92÷ (92) : 165 000 000 ÷ (92) ✓MA 1 : 1 793 478,26 ✓CA 1 : 1 800 000 ✓R	1 RT correct values 1RT ratio 1C conversion to mm 1 MA share with 92 1CA answer 1R rounding	(6)	

| 3.5 | Time = Distance ÷ Speed ✓F
Distance = 70 + 35
          = 105 km ✓A
Time = 105km ÷ 100km/h ✓SF
          = 1,05h
Time = 1 hour (0,05 × 60) ✓MA
          = 1 hour 3 minutes
Arrival time = 13:38 + 1 hour 3 minutes✓MA
          = 14:41 ✓CA
He is correct ✓O | 1F correct formula
1A correct distance
1SF replaced in formula
1MA times 60
1MA adds time
1CA correct arrival time
1O explanation | | (7) |

TAXONOMY LEVELS					
GRADE 10					
MATHEMATICAL LITERACY					
PAPER 2 TERM 2 – 2022					
MARKS: 50					
QUESTION	KNOWLEDGE	ROUTINE PROCEDURES	COMPLEX PROCEDURES	PROBLEM SOLVING	TOTAL
DESIRED %	30%	30%	20%	20%	100%
1.1.1	2				2
1.1.2		2			2
1.1.3		2			2
1.1.4	2				2
1.1.5				3	3
1.2.1	2				2
1.2.2	2				2
1.2.3	2				2
1.2.4		3			3
1.3.1	2				2
1.3.2		2			2
1.3.3			2		2
2.1	2				2
2.2			2		2
3.1	2				2
3.2		2			2
3.3		3			3
3.4			6		6
3.5				7	7
Total	16	14	10	10	50
Actual %	32,0	28,0	20,0	20,0	100,0
Desired %	30%	30%	20%	20%	100