



GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

MATHEMATICAL LITERACY
GRADE 11
INVESTIGATION

TERM 1
SCHOOL BASED ASSESSMENT TASK

TOPIC: MEASUREMENTS

MARKS: 50

SUGGESTED TIME: 1 hour (maximum $1\frac{1}{2}$ hours)

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Number the answers correctly according to the numbering system used in this question paper.
3. Start EACH question on a NEW page.
4. An approved calculator (non-programmable and non-graphical) may be used, unless stated otherwise.
5. All the calculations must be clearly shown.
6. All the final answers must be rounded off according to context, unless stated otherwise.
7. Units of measurement must be indicated where applicable.
8. Write neatly and legibly.

QUESTION 1

(20)

The images below show a picture of Ricoffy tin container with no dimensions indicated. The container is 2,5 times smaller than what it is in reality.



Diameter of the tin on the picture = ?

Height of the tin on the picture = ?

Actual weight of coffee = 750 g

1.1 Measure the diameter of the tin in mm and write down the real diameter in mm (3)

1.2 Hence, determine the circumference of the base of the tin in mm. (3)

You may use the formula: $C = 2\pi r$ $\pi = 3,142$

Hint: radius = half of diameter

1.3 Measure the height of the tin in mm and write down the real height in mm. (2)

1.4 Determine the area of the base of the tin in square meters (3)

You may use the formula: $A = \pi r^2$ $\pi = 3,142$

Hint: radius = half of diameter

1.5 Determine the area of the curved cover of the tin in mm². Round off to the nearest 10 (3)

You may use the formula: $A = L \times H$

Hint: The length of the cover is approximately equals to circumference of the base of the container.

1.6 Determine the volume of the tin in cubic meter. (4)

Hint: Volume of the tin is determined by multiplying the area of the base by the height of the tin.

1.7 What type of shape is the tin of Ricoffy ? (2)

QUESTION 2

(17)

The images below show a picture of Nestle Cremora Carton container with real dimensions indicated. The container not drawn to scale



Length = 145 mm

Breadth = 90 mm

Height = 185 mm

Weight of the Cremora = 750g

2.1 Determine the number of faces the container has. (2)

2.2 Determine the area of the front face in mm^2 (2)

You may use the formula: $A = \text{Length} \times \text{Height}$

2.3 Determine the area of the bottom face in mm^2 (2)

You may use the formula: $A = \text{Length} \times \text{Breadth}$

2.4 Determine the area of the side face in mm^2 (2)

You may use the formula: $A = \text{Breadth} \times \text{Height}$

2.5 Hence determine the total area of all the faces in mm^2 (3)

2.6 Hence, determine the volume of the container in m^3

Hint: The volume of the container is determined by multiplying the area of the base of the container by the height of the container. (4)

2.7 What type of shape is the box of Cremora ? (2)

QUESTION 3 [9]

Mrs Bosoga received a share of 15 boxes of Nestle Cremora from a stokvel during December 2022. She has family of four including herself. Each family member uses an average of 16g of Cremora per day which is equivalent to four sachets. Mrs Bosoga claims that all 15 boxes should be enough to last a year of 365days



3.1 Determine the total number of kilograms from 15 boxes (3)

3.2 Show with calculations whether the 15boxes will be enough to last for a year. (4)

3.3 Determine the number of sachets that will make one box. (2)

Question 4

[4]

Study the advertisement below about a combo of Creamora and Ricoffy from different shops and use to answer the questions that follow.

SHOP A	 NESTLE Cremora Creamer 750g & NESCAFÉ Ricoffy Instant Coffee 250g BUY BOTH 80 per combo https://www.google.com/imgres
SHOP B	 750g NESTLE Cremora ORIGINAL NESTLE Ricoffy Instant Coffee SAVE R37 BOTH FOR R99 WITH CARD NESTLE RICOFFY INSTANT COFFEE GRANULES 750g + NESTLE CREMORA COFFEE AND TEA CREAMER 750g https://www.google.com/url?sa

4.1 Why does it look like the combo from Shop A is much cheaper than the combo from Shop B?

(2)

4.2 Determine the total cost of the items if they were NOT to be sold as a Combo from SHOP B.

(2)

