LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF EDUCATION




**SEKHUKHUNE SOUTH**

**DISTRICT**

**GRADE 11**




**MATHEMATICAL LITERACY**

**TEST 1**

**MARKS: 50**

**TIME: 1 Hours**

**This paper consist of 5 pages including cover page.**

**Instructions and Information**

1. This paper consists of THREE questions
2. Answer ALL the questions.
3. Number the questions correctly according to the numbering system used in this question paper.
4. A non-programmable and non-graphical calculator may be used, unless stated otherwise.
5. ALL calculations and steps must be shown clearly.
6. Units of measurement must be indicated where applicable.
7. Round all final answers appropriate according to the context used.
8. Write neatly and legibly.

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**Question 1**

1.1 Lerato works as a bricklayer; he works 5.5 hours a day and charges R110 per hour or part thereof.

1.1.1 Convert 5.5 hours to hours and minutes. (2)

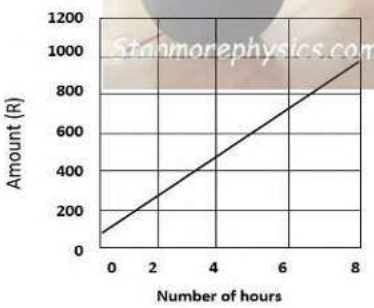
1.1.2 Determine the total amount of money Lerato will receive per day, if she works for 5.5 hours a day. (3)

1.1.3 Calculate the total number of hours worked for R450 received. (2)

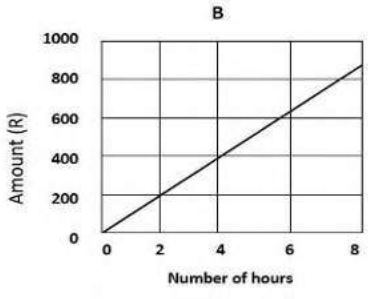
1.1.4 Which of the following graphs represents Lerato's total charge per hour? Write only the correct letter. (2)

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A




B




1.2 Paulina is a physiotherapist. She was contacted by SARU (The South African Rugby Union) to give the 7s rugby players a massage during the rugby tournament that was held in Cape Town during December 2022. Paulina hires 13 masseuses to perform this duty.

**NB:** *Masseuses is a person who provides massage professionally.*

| **Number of Sessions per day** | 1 | 2 | 3 | 4 | 5 | 8 | 10 |
|---|---|---|---|---|---|---|---|
| **Number of Masseuses** | 13 | 26 | 39 | 52 | 65 | **A** | 130 |
| **Income in Rand** | 1755 | 3510 | **B** | 7020 | 8775 | 14040 | 17550 |

1.2.1 Show by means of calculations that a single massage cost R135. (2)

1.2.2 Which one is the dependent variable? (2)

1.2.3 Calculate the value of **A** and **B**. (4)

1.2.4 Write down the formula to calculate the total income per person. (2)

**Income = … x …**

**[19]**

**Question 2**

You are baking a cake for a friend's birthday. The recipe book you are using is a European cookbook, which means that the measurements are in metric units.

| | |
|---|---|
| The recipe requires 250 grams of flour.<br>• It needs 150ml of milk.<br>• The oven needs to be preheated to $180^0$C.<br>• The cake needs to be baked for 45 minutes.<br>• You also need to prepare a frosting that requires 2 cups of powdered sugar. | <br>https://images.google.com |

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2.1 The recipe requires 250g of flour. If one cup of flour is approximately 120g, How many cups of flour do you need, round your answer to two decimal places. (2)

2.2 The frosting requires 2 cups of powdered sugar. If 1 cup of powdered sugar is approximately 120g. How many grams of powdered sugar do you need? (2)

2.3 The oven needs to be preheated to $180^0$C.

Use the formula $= - +$ to convert this temperature to Fahrenheit ($^0$F). (2)

2.4 Your friend lives very far, you will travel half a day to deliver the cake to her place.

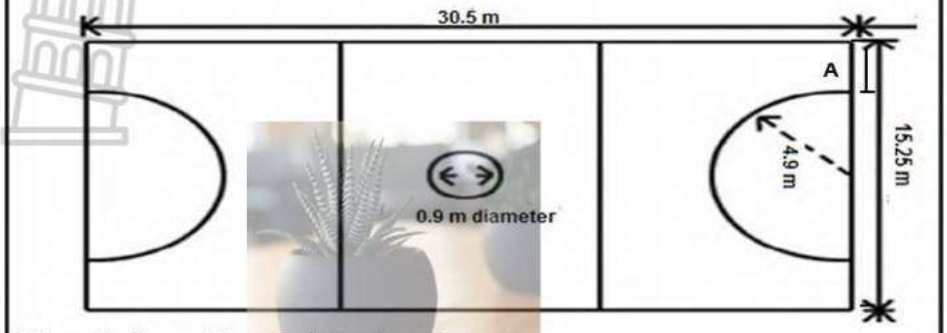
Write down how long you will travel in seconds. (4)

**[10]**

**Question 3**

3.1 Consider the diagram below and answer the following questions.

A netball court with dimensions of the centre circle and semi-circles at the extreme ends are given in the diagram below.




**The netball court has the following dimensions:**
Length of the court = 30,5 m
Breadth of the court = 15,25 m
Diameter of centre circle = 0,9 m
Radius of semi-circle = 4,9 m

3.1.1 Define the term perimeter in the given context. (2)

3.1.2 Calculate the Area of the netball court. (2)

3.1.3 Calculate the distance of the letter A. (5)

3.2 The picture below shows a netball court stand that has 50 chairs and a paint. Use these images to answer the following questions.







*1 can = 2 ℓ*

*1 can = R139*

https://images.google.com

The paint with a spread rate of 2.5 liters per 3.8m$^2$ will be used to paint the chairs.

3.2.1 If the area of one chair is 0.4m$^2$, calculate the total area of all the chairs in the stands. (2)

3.2.2 Calculate the number of liters of paint required to paint all the chairs. (4)

3.2.3 How many cans of paint are needed to paint all the chairs? (2)

3.2.4 If you budgeted R1 100 for the project, how much will you left with after buying the paints? (4)

**[21]**

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