LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE EAST DISTRICT

SENIOR PHASE

GRADE 8

MATHEMATICS PAPER 1

TERM 4 EXAMINATION

2024 NOVEMBER

Marks: 60

Duration: $1\frac{1}{2}$ Hours

Instructions to the Learner

1. Read the questions before answering
2. Answer all questions on a separate answer book provided
3. Question 1 consists of 5 multiple choice questions. Write down the letter of the correct answer.
4. All working must be shown
5. The examination is out of 60
6. The test duration is $1\frac{1}{2}$ hours
7. Approved scientific calculators (non-programmable and non-graphical) may be used
8. Answer question 5.3 on the grid paper provided on page 6 of your question paper and submit it together with your answer book
9. The diagrams are not drawn to scale

This question paper is consists of 6 pages including the cover page

QUESTION 1 MULTIPLE CHOICE [10 MARKS]

Four possible answers are given. Write down the letter of the correct answer.

E.g. 1.6 D

1.1 (- 50) + (- 50) = _____ (2)

A. 0 B. – 50 C. – 100 D. 100

1.2 $\sqrt{0,09}$ = _____ (2)

A. 0,3 B. 0,03 C. 0,003 D. 3

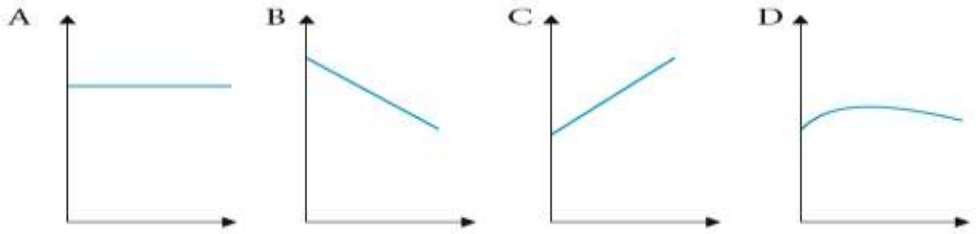
1.3 The coefficient of x^3 in $\frac{x^3}{3}$ + 2x^2 – x – 6 is (2)

A. $\frac{1}{3}$ B. 3 C. 1 D. -6

1.4 (3^2 a^0) = _____ (2)

A. 0 B. 1 C. 6 D. 9

1.5 Which graph below represents a quantity that decreases at a constant rate? (2)



QUESTION 2 [11 MARKS]

2.1 State TRUE or FALSE; $\frac{0}{9} = \frac{9}{0}$ (1)

2.2 Write down the LCM of 12 and 48 (1)

2.3 Write down the prime factors of 180 (2)

2.4 The temperature in Malamulele Town was – 1°C in the morning. In the afternoon the temperature was 27 °C. By how many degrees did the temperature rise? (2)

2.5 Calculate; -16 + (- 2) + (- 12) ÷ (- 4) (2)

2.6 Matilda takes out a loan of R1 500 for a year. If the interest rate is 15% per annum,

What is the total amount will she pay ? (3)

QUESTION 3 **[12 MARKS]**

3.1 Simplify; $\sqrt[3]{64a^3}$ (1)

3.2 Simplify; $6^2 + \sqrt{9^2} - 1^3$ (2)

3.3 Write 41 700 000 in scientific notation (1)

3.4 Calculate

3.4.1 $\frac{2}{7} \div \frac{1}{3}$ (2)

3.4.2 5% of 800 (1)

3.4.3 0,55 ÷ 0,11 (2)

3.4.4 Calculate the percentage decrease if the price of petrol goes down from R25 a litre to R20 a litre. (3)

QUESTION 4 **[18 MARKS]**

4.1 Simplify;

4.1.1 3x – 2y + 4 – 3x – y + 2 (2)

4.1.2 $\frac{15x^2-10x-5}{5}$ (3)

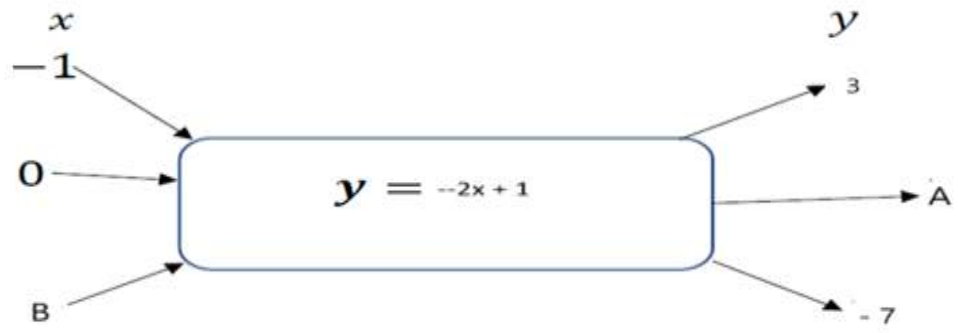
4.2 Evaluate; $x^3 - 2x^2 + x - 5$ if x = -1 (3)

4.3 Solve for x

4.3.1 5x – 4 = 26 (2)

4.3.2 $5^{x+1} = 125$ (3)

4.4 Study the flow diagram below and determine the values of A and B (2)



4.5 Consider the table below

x	Input	1	2	3	4	_____
y	Output	5	8	11	14	32

4.5.1 Determine the rule to show the relationship between x and y (1)

4.5.2 Find the input if the output is 32 (2)

QUESTION 5 **[9 MARKS]**

5.1 Write down the next two terms in the sequence; 1; 4; 9; 16; 25; _____; _____ (2)

5.2 Study the pattern in the pictures below and answer the questions that follow

Picture Number	1	2	3	5
Number of balls	1	3	6	_____

5.2.1 Write down the number of balls in picture 5 if the pattern is continued (2)

5.2.2 Show how you determined the number of balls in picture 5 (2)

5.3 Use the table below to plot and draw the graph on the Cartesian plane. [**NB Use the grid paper provided on page 6 of your question paper. Remove the grid paper from the question paper, write down your names and submit it together with your answer book]** (3**)**

x	**- 4**	**- 3**	**- 2**	**- 1**	**0**	**1**	**2**	**3**	**4**
y	**- 1**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**

TOTAL MARKS: 60

MATHEMATICS GRADE 8 FINAL EXAM 2023

NAME: …….. CLASS:……

QUESTION 5.3