education
Department of Education
FREE STATE PROVINCE

SURNAME:			**50**
NAME:			
SCHOOL:			**_____%**
DATE:			
GRADE 7 _____	**BOY (MARK WITH X)**	**GIRL (MARK WITH X)**	**LEVEL: ___**

Question	**1**	**2**	**3**	**4**	**5**
Total Marks	**10**	**7**	**8**	**11**	**14**
Marks obtained					

GRADE 7

MATHEMATICS PAPER 1

NOVEMBER 2024

MARKS: 50

TIME: 90 MINUTES

This question paper consists of 11 pages.

INSTRUCTIONS

1. Read ALL the questions carefully.
2. Answer ALL the questions in the spaces or frames provided.
3. ALL calculations must be shown on the question paper.
4. You are NOT allowed to use a calculator.
5. You may use any mathematically correct method.
6. Write neatly and legibly.

QUESTION 1

1.1 Arrange the following numbers in ascending order. (1)

989 999 999; 959 999 999; 949 999 999; 979 999 999; 919 999 999

_____

_____

1.2 Find the sum of the first four prime numbers. (1)

_____

1.3 Calculate the product of 8 309 and 194 (2)

1.4 Calculate: $20 \times 4 - 80 \div 2 + 10$ (2)

1.5 Three investors buy shares in a cell phone business. Senzi invests R1 000, Neo invests R1 500, and Thabo invests R2 500. A year later they received their first dividend (pay–out) of R1 500. How must they share the dividend? (4)

[10]

QUESTION 2

2.1 Complete the following table. Write the fraction in its simplest form (2)

Decimal fraction	Common fraction	Percentage
0,06	$\frac{3}{50}$	2.1.1_____
0,85	2.1.2 _____	85%

2.2 Calculate: $3\frac{1}{7} - 1\frac{2}{3}$. Write the answer in its simplest form. (3)

2.3 A magic square is a puzzle where all the rows, columns, and diagonals add up to the same total. Complete the following magic square by filling in the missing fractions. (2)

0,5	$2\frac{1}{3}$	_____
$2\frac{2}{3}$	_____	$\frac{1}{3}$
$1\frac{1}{3}$	$\frac{2}{3}$	2,5

[7]

QUESTION 3

3.1 Write the place value of the underlined digit in 345,6<u>7</u> (1)

_____

3.2 Round off 12,568 to two decimal places. (1)

_____

3.3 If 4 kg of sugar cost R36,80 what will 2,5 kg of sugar cost? (2)

3.4 A water bottle contains 1,8 liters of water. If 0,3 liters of water are drunk every half an hour, and the bottle is refilled when empty, how many times will the bottle be refilled in 12 hours? (2)

3.5 Samson rides 26,4 km on his bicycle for 3 hours every morning as part of his daily exercise. How many kilometers will he cover in 15 hrs? (2)

[8]

QUESTION 4

4.1 Simplify the following and show all your steps: (4)

$\sqrt[3]{64} + \sqrt{729 \div 9} \times (7 - 4)^3$

4.2 Order the following numbers in descending order. (1)

$-105;\ -291;\ 513;\ -312;\ 2\,020;\ -1$

_____; _____; _____; _____; _____; _____

4.3 List all the integers from the numbers below: (1)

$$1{,}25\ ;\ -6\ ;\ -2\,555\ ;\ 0\ ;\ \frac{1}{2}\ ;\ -3{,}76\ ;\ 5^2;\ \sqrt{16}\ ;\ 0{,}19$$

_____

4.4 Calculate: (2)

$-11 - 7 + (-10) - (-6)$

4.5 If the maximum temperature is 27℃ and the temperature drops by 31℃ the next day, what is the temperature the next day? (1)

4.6 In a quiz, you score 3 points for a correct answer and -2 for an incorrect answer. What is your score if your answer has five correct and two incorrect answers? (2)

[11]

QUESTION 5

5.1 Study the table below and answer the questions that follow.

Position in sequence	1	2	3	4
Term	8	16	24	32

5.1.1 Describe, in words, the rule you can use to find a term in any position in the sequence. (1)

_____

_____

5.1.2 Determine the n^{th}term in the sequence. (1)

_____

_____

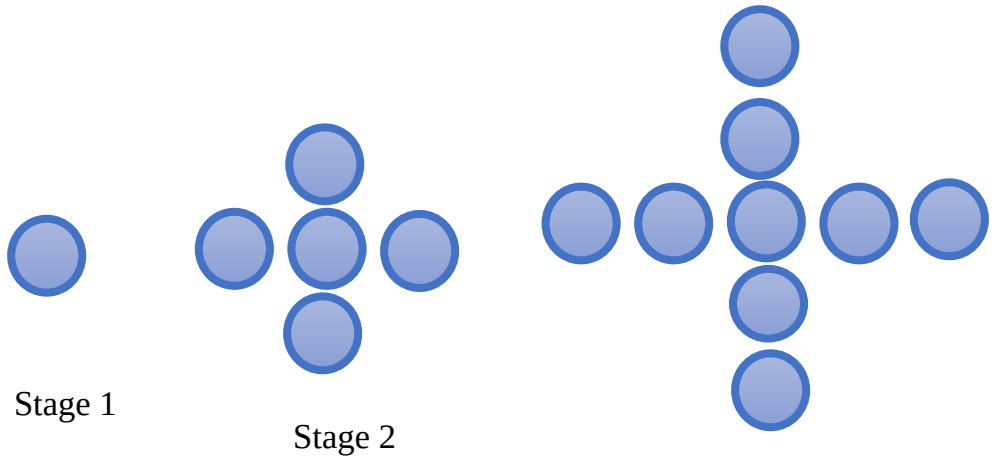
5.1.3 Write down the 20th term in the sequence. (1)

_____

5.1.4 What are the terms in this sequence called? (1)

_____

5.2 Consider the geometric pattern below:



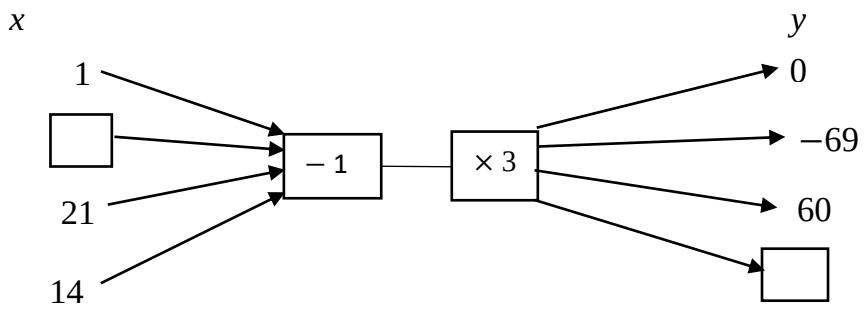
Stage 1 Stage 2 Stage 3

5.2.1 Complete the table below. (2)

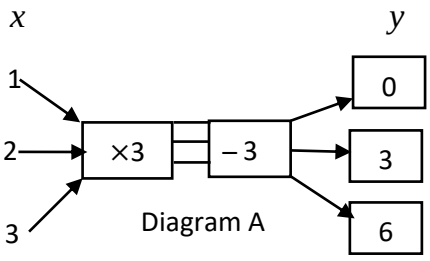
Stage Number	1	2	3	4		B ____		100
Number of Circles	1	5	9	A _____		345		397

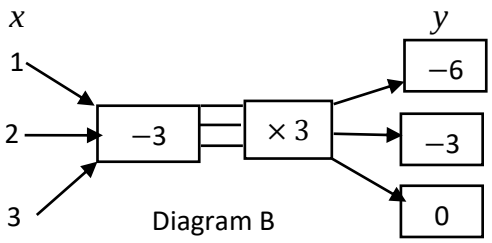
5.2.2 Find the number of circles in the 12^{th} stage. (2)

5.3 Fill in the missing values in the flow diagram. (2)



5.4 Consider the following diagrams:





5.4.1 Are these two flow diagrams equivalent? Give a reason for your answer. (2)

_____

_____

5.5 Nomsa is saving up to buy a new hockey stick, which costs R500. She already has R260 saved from her birthday. She makes some money by watering her grannies flowers and manages to save R25 per week.

Create a formula for Nomsa's savings (T) after any number of weeks (w). (2)

_____

[14]

TOTAL: [50]