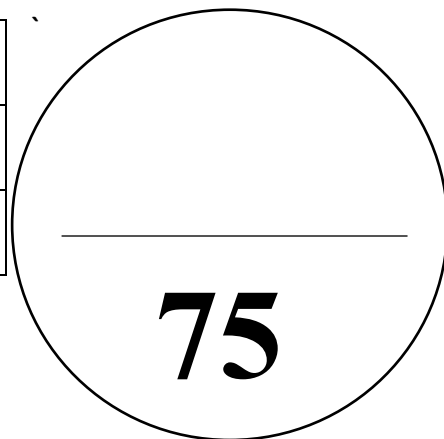


Name of School:	
Grade:	
Name of Learner:	



**GRADE 9
MATHEMATICS
JUNE 2026**

MARKS: 75

TIME: 2 HOURS

This Paper consists of 13 pages, including this Cover page

INSTRUCTIONS

Read the instructions carefully below, before starting with the question paper

1. This paper consists of **7 questions**.
2. Answer all the questions in the spaces provided **on this question paper**.
3. Show all calculations as **ANSWERS ONLY** will not necessarily be awarded full marks.
4. You may use an approved scientific calculator, unless otherwise stated.
5. If necessary, round off to **TWO** decimal places, unless stated otherwise.
6. Diagrams are not necessarily drawn to scale, and all lines are regarded as straight lines unless stated otherwise.
7. Write neatly and legibly.

QUESTION 1

FOUR possible answers are given. **CIRCLE** only the letter next to the correct answer.

1.1 $10x^0 - (10x^2)^0$

(1)

A 9

B 10^2

C 0

D 1

1.2 How many stars will there be in the 4th pattern?

(1)



Pattern 1



Pattern 2



Pattern 3

A 15

B 28

C 22

D 16

1.3	The product of two 2-digit numbers is 2160 and their HCF (Highest common factor) is 12. The numbers are:	(1)
A	24 and 90	
B	36 and 60	
C	30 and 72	
D	16 and 135	
1.4	Simplify: $a^{-1} + b^{-1} = \dots$	(1)
A	$\frac{1}{a+b}$	
B	$\frac{2}{a+b}$	
C	$\frac{a+b}{ab}$	
D	$\frac{-b-a}{ab}$	
1.5	The coordinates of a point on the Cartesian plane is $(a; 2 - a)$, where a is a real number. Regardless of the value of a , this point will never lie in one of the four quadrants. In which quadrant will the point never lie?	(1)
A	Quadrant 1	
B	Quadrant 2	
C	Quadrant 3	
D	Quadrant 4	
		[5]

QUESTION 2

2.1 Calculate each of the following without the use of a calculator. Show all your calculations.

2.1.1 $3(-2 + 2) - 2(5 - 4 + 1)$

(3)

2.1.2 $\sqrt[3]{73 - (-3)^2}$

(3)

2.2 A school in the Western Cape received a donation of 120 pens. The principal decided to divide the pens between the grade 8 and 9 class in the ratio 4 : 6. How many pens will the grade 9 class receive?

(2)

2.3 It takes six learners 5 hours and 40 minutes to help Mrs. Burger rearrange the textbooks in the storeroom during the June Holiday. How long will it take 10 learners to complete the same task if they work at the same pace? Write your answer in hours and minutes. _____ _____ _____ _____ _____	(3)
2.4 Peter invested R20 000 in an account at a 15% compounded interest rate per annum for 3 years. After the 3 years he will use the money to go and visit his friend in Europe. 2.4.1 Calculate the value of the investment after 3 years. _____ _____ _____ _____ _____	(3)
2.4.2 Calculate the value of the investment in Question 2.4.1 in Euro (€) if the projected exchange rate is €1 = R22.50 _____ _____ _____	(1)
[15]	

QUESTION 3

3.1 Simplify the following: (All answers must be given with positive exponents)

3.1.1 $2p^2 \times \frac{1}{2}p$

(2)

3.1.2 $(3x^{-3})^2$

(2)

3.1.3 $\frac{\sqrt{256 a^4 b^2}}{3a^{-3}b^2} \div \frac{8a^3b}{9a^4b}$

(4)

[8]

QUESTION 4

4.1 Study the pattern: $-2 ; 5 ; 12 ; 19 \dots$

4.1.1 Determine the general rule for the pattern in the form $T_n = \dots$

(2)

4.1.2 Which term in the pattern will be 152?

(2)

4.2 Study the table below:

x	-1	0	1	2	9	24
y	-1	2	5	8	a	74

4.2.1 Determine the equation of the function in the form $y = \dots$

(2)

4.2.2 Hence, or otherwise, determine the value of a .

(2)

4.3	The 4 th term in a pattern is 20 and the 5 th term is 29. The pattern is formed by adding consecutive odd numbers so that the second constant difference of the pattern is 2. Determine the first 2 terms of the pattern.	(3)
		[11]

QUESTION 5		
5.1	Simplify each of the following expressions:	
5.1.1	$2x(3x - 4)$	(2)
5.1.2	$\left(\frac{x}{2} - 1\right)\left(\frac{x}{2} + 1\right)$	(2)
5.1.3	$\frac{x^2 + 3x - 18}{2x + 12}$	(3)

5.2	Factorise each of the following expressions completely:	
5.2.1	$3x^3 - 12x^2$	(2)

5.2.2	$x^4 - y^2$	(2)

5.2.3	$-10 - 8x + 2x^2$	(2)

		[13]

QUESTION 6

6.1 Solve for x in each of the following algebraic equations:

6.1.1 $3x = -54$

(1)

6.1.2 $\frac{1}{2}(x - 2) = 0$

(2)

6.1.3 $2x(x - 2) = 0$

(2)

6.1.4 $2^{x+3} = 128$

(3)

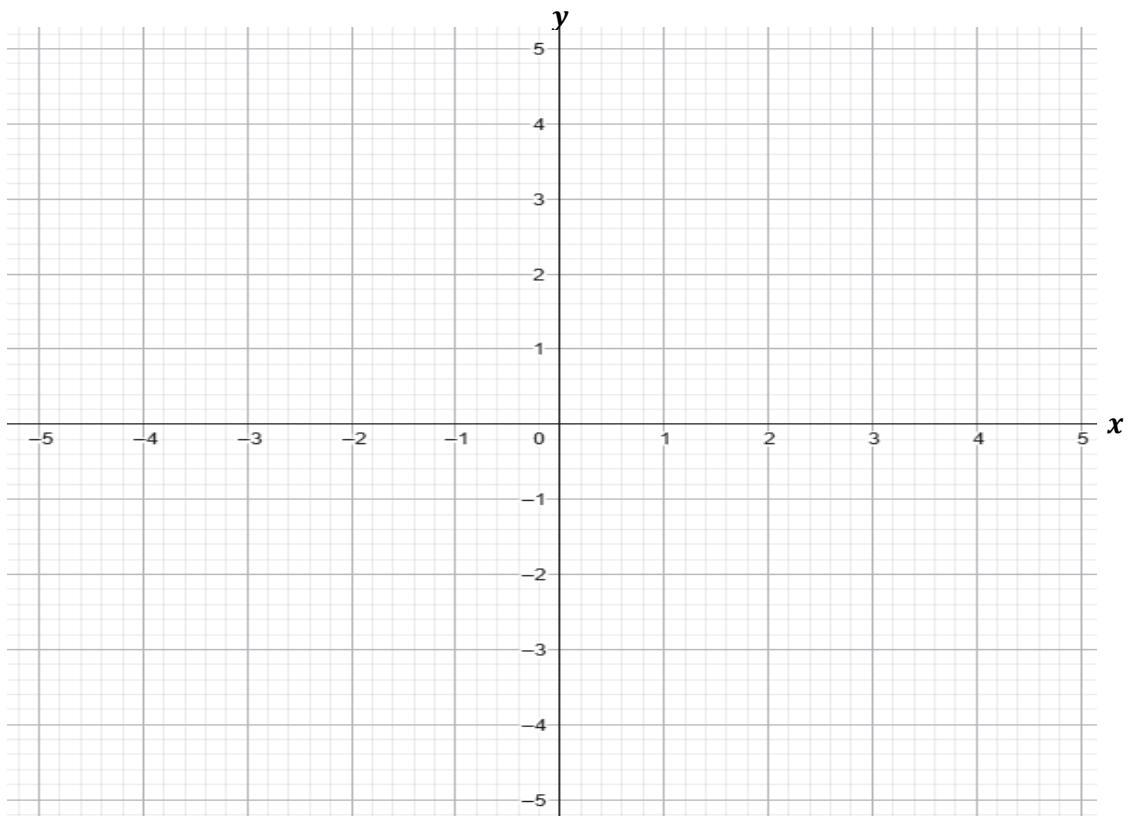
6.2	The length of a rectangle is $(x + 4)$ meter and the width is $(x - 1)$ meter. If the area is $24m^2$, determine the length of the rectangle.	(5)
		[13]

QUESTION 7

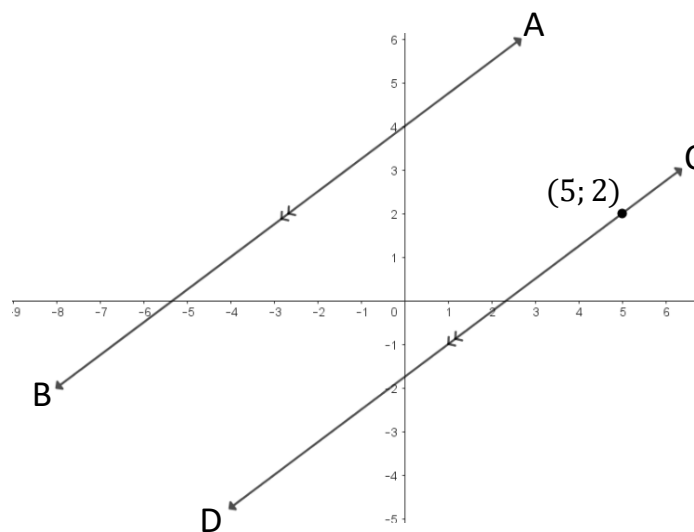
7.1 Given the equation: $3y + 6x = 12$. Answer the questions that follow. 7.1.1 Write the equation in the form: $y = mx + c$ _____ _____ _____	(1)
7.1.2 Determine the x –intercept of the graph represented by $3y + 6x = 12$. _____ _____ _____ _____ _____	(2)

7.1.3 Draw the graph of $3y + 6x = 12$ on the given Cartesian plane.

(3)



7.2 The diagram below shows a straight line AB with equation: $y = \frac{3}{4}x + 4$. Use the diagram and the equation to answer the following questions, if $AB \parallel CD$:



7.2.1 Write down the gradient of line CD.

(1)

7.2.2	Hence, or otherwise, determine the equation of line CD.	(3)
		[10]
		TOTAL: 75

END OF THE PAPER

[illegible]