

NAME:.....

PORT SHEPSTONE ISLAMIC SCHOOL



MATHEMATICS TEST GRAPHS

GRADE 9

TERM 2 2020

TIME: 1 Hour

TOTAL: 50

INSTRUCTIONS AND INFORMATION

1. This question paper consists of **6** questions.
2. Answer **ALL** the questions.
3. Clearly show ALL calculations, diagrams, graphs et cetera that you have used in determining yours answers
4. Number the answers correctly according to the numbering system used in this question paper.
5. Write neatly and legibly.

QN	MARK
1	
2	
3	
4	
5	
6	
TOTAL	



B GUNDARI JULY 2020

Turn over

QUESTION 1

State the gradient of the following straight lines

1.1 $y = -3x + 5$

(1)

1.2 $3x - 12y + 8 = 0$

(1)

1.3 $y = -\frac{2}{3}x + 7$

(1)

1.4 $y = 10$

(1)

1.5 $x = -10$

(1)

[5]**QUESTION 2**

2.1 Given $y = -\frac{2}{3}x + 3$, indicate whether the points given below lie on the given line or not.

2.1.1 (0 ; -3)

(2)

2.1.2 (3 ; 1)

(2)

2.2 State the equation of a straight line with a gradient of -5 and passing through the point (0 ; 10)

(2)

2.3 Calculate the gradient of the line joining the following points:

A(0 ; - 3) , B (5 ; 2) and C(10 ; 7)

(3)

2.4 A straight line passes through the points (1 ; - 1) and (0 ; 2). Calculate the equation of the straight line.

(3)

[12]

QUESTION 3

3.1 Use the equation $y = - 10x - 1$ to calculate the values of y in the table below

x	- 1	0	3
y			

(3)

3.2 The points A(- 1 ; 7) , B (0 ; 10) and C(1 ; 13) are given. Calculate the gradient of the straight line passing through:

3.2.1 AB

(2)

3.2.2 BC

(2)

3.2.3 What do you notice about points A, B and C?

(1)

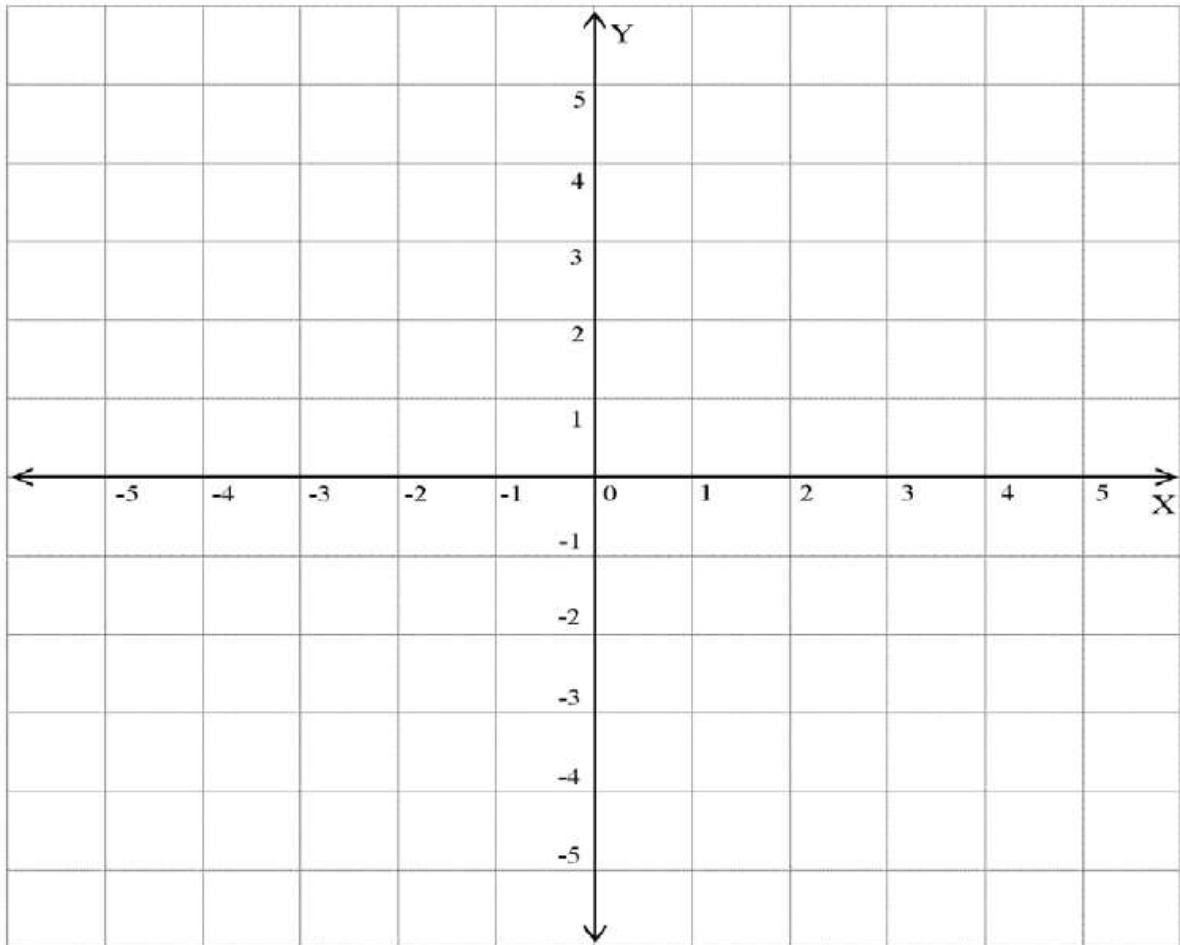
3.3 On the diagram sheet given below draw the graphs of

3.3.1 $y = -3$

(1)

3.3.2 $x = 3$

(1)

**[10]**

QUESTION 4

Given the straight – line A : $y = 2x - 3$

4.1 State the y intercept

(__ ; __)

(2)

4.2 State the x – intercept

(__ ; __)

(2)

4.3 Calculate the equation of a line parallel to A and passing through the point

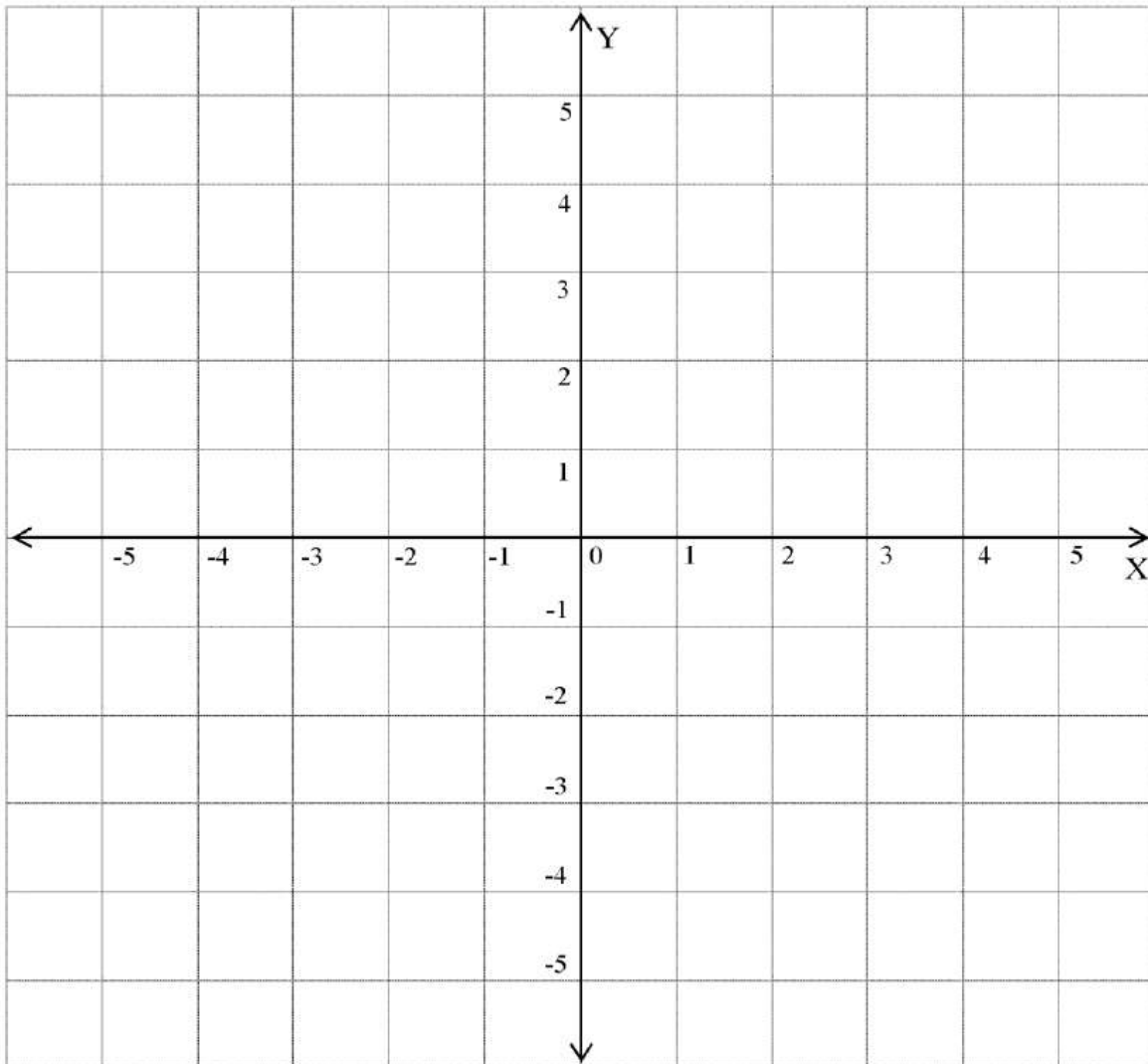
(1 ; -2)

(3)

[7]

QUESTION 5

Use the grid below to answer the questions that follow



5.1 Draw the graphs defined by $y = -x + 4$ and $y = x - 4$ on the given set of axes. Label each graph and clearly mark the points where the lines cut the axes. (6)

5.2 Write down the coordinates of the point where the two lines cut one another. (2)

(__ ; __)

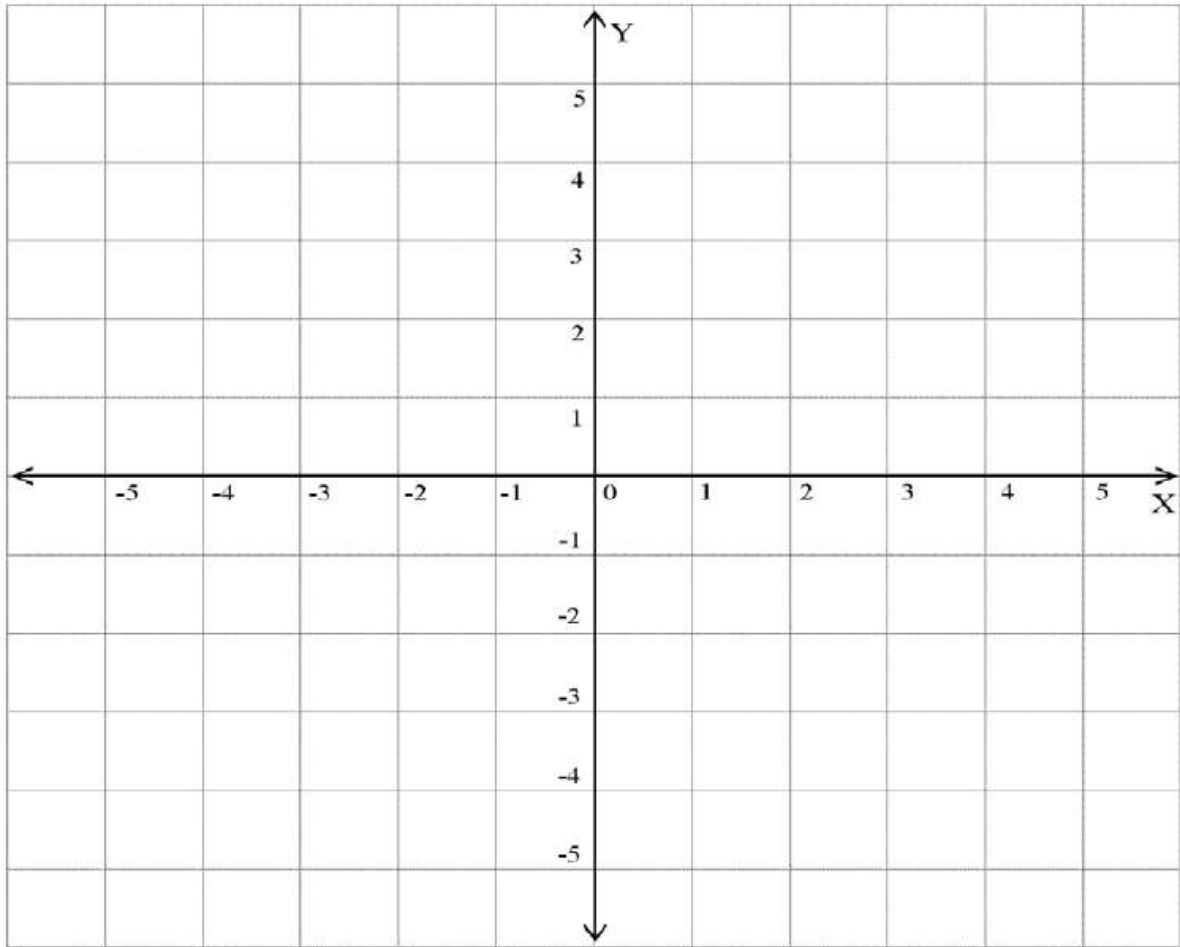
5.3 Show algebraically that these two lines meet at the point (4 ; 0) (3)

(3)

[11]

QUESTION 6

Given the points A $(-2; -4)$ and B $(-1; -2)$ and C $(2; 4)$



6.1 Plot the points on the graph and join the points (3)

6.2 Calculate the gradient of the line joining these points

(2)

[5]

TOTAL: 50