

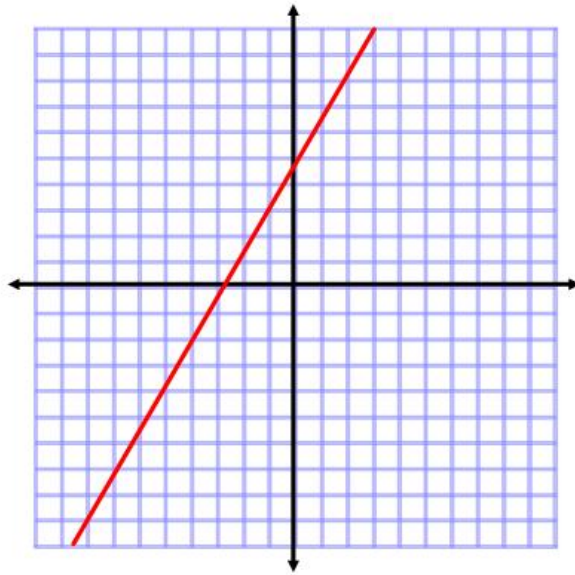
# MTH-3017

## Pretest DC

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1. For the following graph, state whether its slope is positive, negative, equal to zero or undefined. Then state whether the line is increasing, decreasing, horizontal or vertical. (2 marks)



2. Derive the equation of a straight line that goes through the points ( 13 , 0 ) and ( 0 , 4 ). Express the equation in either the  $y=mx+b$  format or the  $Ax+By+C=0$  format. (10 marks)
3. Find the slope of the line that goes through the points ( 3 , 2 ) and ( -1 , 4 ). (4 marks)
4. Graph the following equation. Identify three points, including all intercepts, in a table of values, and label three points on the graph. (10 marks)

$$2y = 4 - 6x$$

5. Using the form  $y = mx + b$ , identify the slope and y-intercept of the following straight line equation. (2 marks)

$$3x - 3 = 3y$$

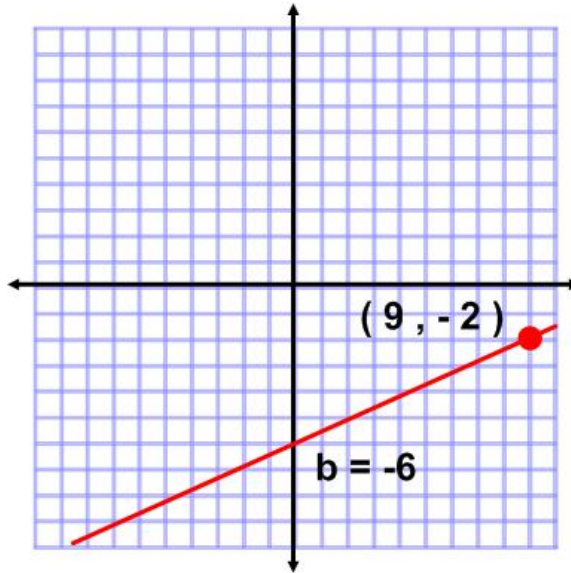
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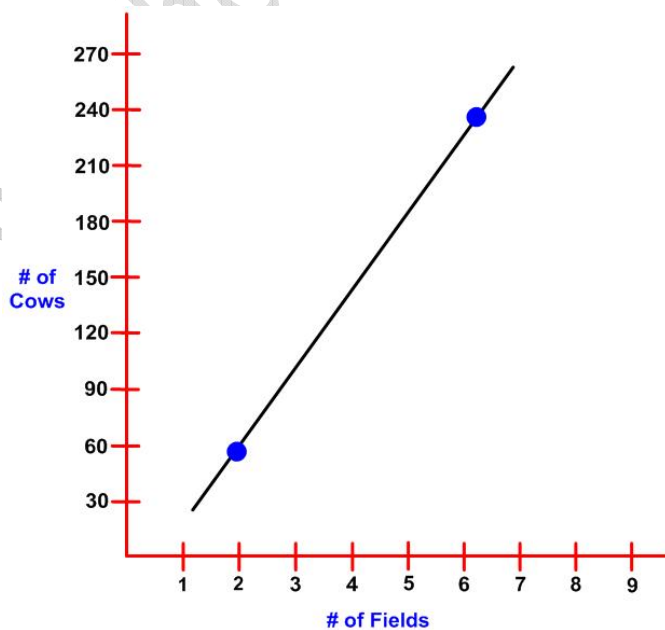
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6. Derive the equation of the following straight line. Express the equation in either the  $y=mx+b$  format or the  $Ax+By+C=0$  format. (10 marks)



7. For the following graph, give the slope with its unit of measure. (4 marks)



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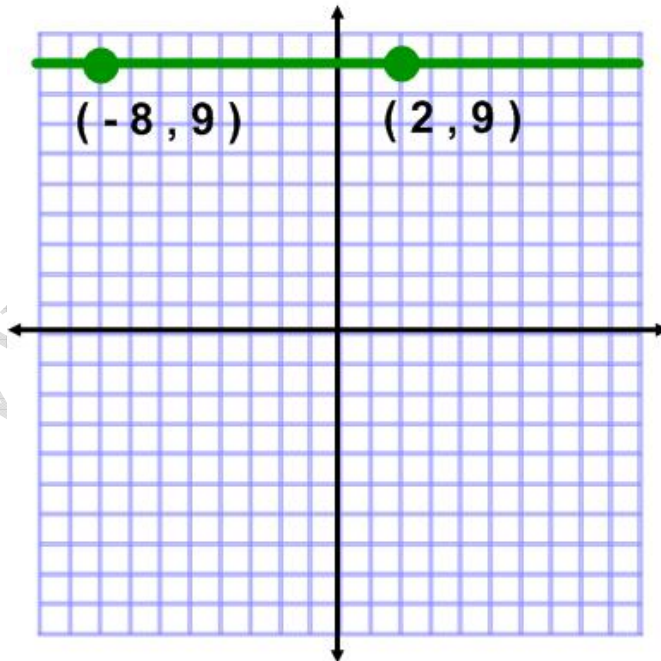
8. Graph the following equation. Identify three points, including all intercepts, in a table of values, and label three points on the graph. (10 marks)

$$0.2x + 5 = 2y$$

9. Graph the following equation. Identify three points, including all intercepts, in a table of values, and label three points on the graph. (10 marks)

$$\frac{1}{4}y = x$$

10. Derive the equation of the following straight line. Express the equation in either the  $y=mx+b$  format or the  $Ax+By+C=0$  format. (10 marks)



11. Graph the straight line that goes through the point P( -5 , -1 ) and has a slope of  $\frac{3}{8}$ . Identify two points on the line. (4 marks)

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12. Solve with a graph. Indicate the scale chosen. (10 marks)

In a bicycle taxi, Nicolas charges \$17.00 for a 5-km ride and \$14.00 for a 2.8km ride. If a straight line equation applies to this situation, how many kilometers can you ride for \$8.00?

13. Using the form  $Ax + By + C = 0$  and the formula  $m = \frac{-A}{B}$ , find the slope of the following straight line equation. (4 marks)

$$-1 = y$$

14. Solve with a graph. Indicate the scale chosen. (10 marks)

When no snow has fallen overnight, it takes Douglas 18 minutes to drive to work. When 17cm of snow has fallen, it takes him 55 minutes. If a straight line equation applies to this situation, how long will it take Douglas to drive to work when 11cm of snow has fallen?