

MTH-3017

Pretest DD

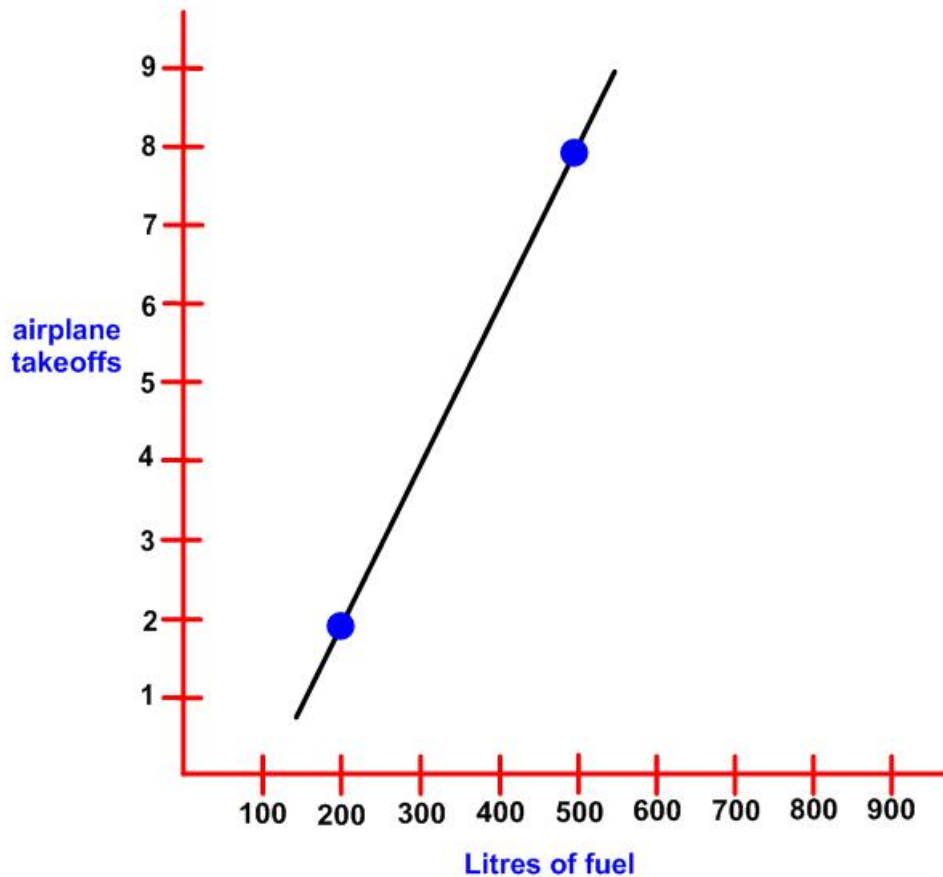
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1. Using the form $Ax + By + C = 0$ and the formula $m = \frac{-A}{B}$, find the slope of the following straight line equation. (4 marks)

$$-0.25x - 8.8 = 0.75y$$

2. Derive the equation of a straight line that goes through the point $(0, 2.4)$ and has a slope of 1.2. Express the equation in either the $y=mx+b$ format or the $Ax+By+C=0$ format. (10 marks)
3. For the following graph, give the slope with its unit of measure. (4 marks)



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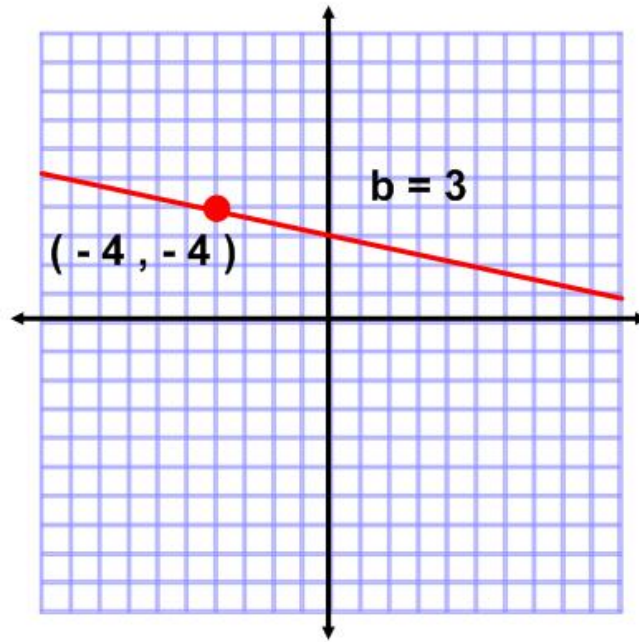
4. Solve with a graph. Indicate the scale chosen. (10 marks)

Twelve m^2 of nylon makes a tent big enough for 2 people. $18.5m^2$ of nylon makes a tent big enough for 3 people. If a straight line equation applies to this situation, how many m^2 of fabric are needed to make a tent big enough for 6 people?

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

$$0.5y = 2.2$$

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

$$\frac{1}{2}y - \frac{1}{3}x = \frac{1}{4}$$

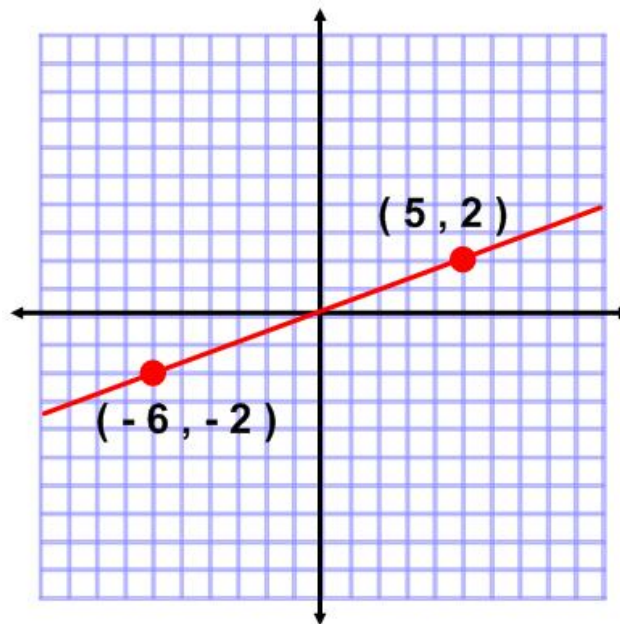
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8. Derive the equation of the following straight line. Express the equation in either the $y=mx+b$ format or the $Ax+By+C=0$ format. (10 marks)



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)

$$y = -3x$$

10. Graph the straight line that goes through the point $P(-2, 4)$ and has a slope of $\frac{-3}{5}$. Identify two points on the line. (4 marks)

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

$$4y = 3x$$

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

A 25-liter aquarium holds 6 small fish and a 55-liter aquarium holds 11 small fish. If a straight line equation applies to this situation, how many liters are necessary to hold 8 small fish?

13. Find the slope of the line that goes through the points (5 , 5) and (0 , 8). (2 marks)

14. For the following graph, answer both multiple choice questions. (2 marks)

- i. The line is a) vertical b) horizontal c) increasing d) decreasing
- ii. The slope is a) positive b) undefined c) equal to zero d) negative

