

Name: \_\_\_\_\_

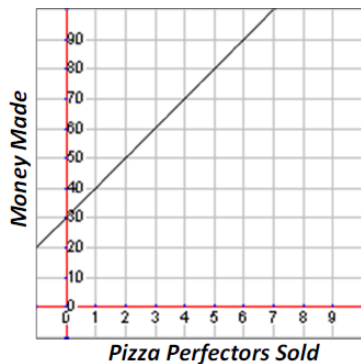
This test MUST be sent back via webmail!!

### Unit 6 Modified Test

You must **SHOW ALL WORK** to receive full credit.

Use the given graph to solve the linear question.

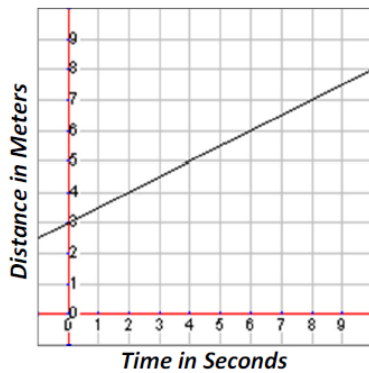
1. How many Pizza Pie Perfectors does the salesman have to sell to make \$100?



Hint: Money Made is on the y-axis.

Write the equation in any form for the following linear graph or table.

- 2.



HINT: Slope-Intercept Form

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

Then use:  $y = mx + b$

3. The table shows the cost (y) to buy llamas (x).

Llamas	2	4	6	8	10
Cost	350	650	950	1250	1550

HINT: Point-Slope Form

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

Then use:  $y - y_1 = m(x - x_1)$

Name: \_\_\_\_\_

This test MUST be sent back via webmail!!

Calculate the slope of the line that passes through the pair of points.

4.  $(-5,3)$  and  $(6,-1)$

HINT:

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

Graph the following equations.

“Review” tab at top, then “Start Inking”. That will give you a pen tool to draw the lines.

--OR--

Use “Insert”>“Clip Art”> Select the circle tool to make points on the graph

HINT:

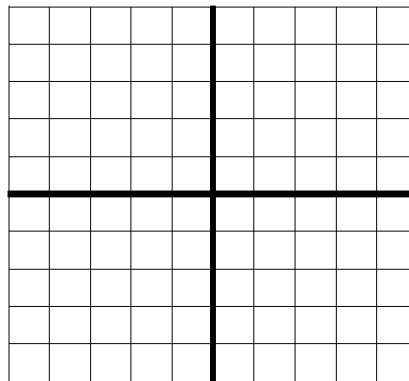
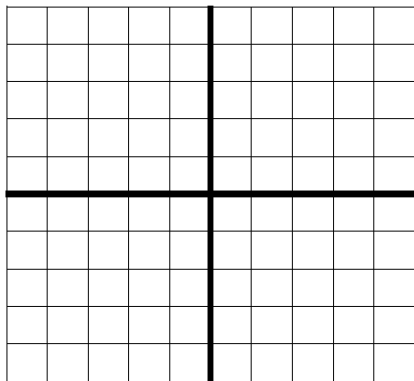
$$y = mx + b$$

$b = y$  intercept

$m = \text{slope}$

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

6.  $y = x + 3$



Name: \_\_\_\_\_

This test MUST be sent back via webmail!!

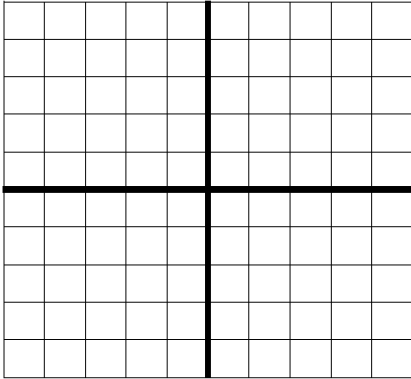
7.  $2x + 3y = -6$

HINT: Find the x and y intercepts.

Substitute 0 for x and solve. That is one point.

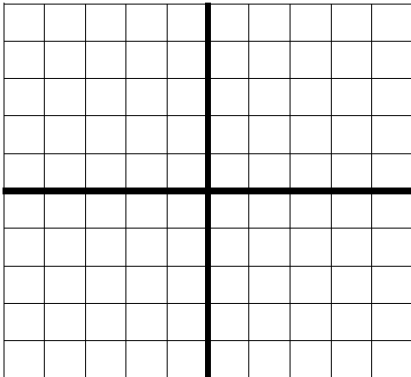
Substitute 0 for y and solve. That is the second point.

Graph the points and make a line.



8.  $x = 3$

HINT: Is this a vertical or horizontal line?



Name: \_\_\_\_\_

This test MUST be sent back via webmail!!

Write an equation of the line using the given information.

Point-Slope Form	OR	Slope-Intercept Form
$y - y_1 = m(x - x_1)$		$y = mx + b$

9. passes through (6,2) and  $m = \frac{2}{5}$

10. slope =  $-\frac{2}{3}$  and y intercept = 4

11. What is an equation of the line parallel to  $y = \frac{1}{2}x + 3$  and through (4,8)?

HINT: What do you know about the SLOPE of parallel lines?

$$y - y_1 = m(x - x_1)$$

12. Describe the slopes of perpendicular lines.

Name: \_\_\_\_\_

This test MUST be sent back via webmail!!

13. Write the equation in standard form using integers.

$$y - 3 = \frac{1}{4}(x + 12)$$

HINT:

- Need to distribute FIRST
- Multiply EVERYTHING by denominator to eliminate fraction
- Write in form  $Ax+By=C$

14. Write the equation in slope-intercept form (solve for y). Then, identify the slope and the y-intercept.

$$2x + 3y = 12$$

HINT:

- Solve for y first
- Then use  $y=mx+b$  to identify the slope and y-intercept