

UNIT 3 DAY 30 - HOMEWORK



Name: key

Tell whether the following pairs of lines are parallel, perpendicular or neither.

1.  $y = 8x - 3$ ,  $y = 8x - 3$   
 $m = 8$      $m = 8$

Parallel lines

2.  $y = 5 - 2x$ ,  $-6 + 2y = x$   
 $m = -2$      $m = \frac{1}{2}$

perpendicular

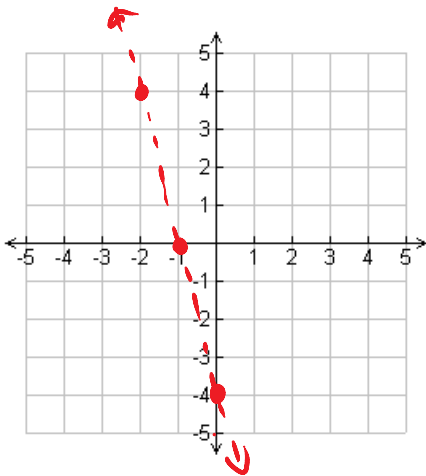
$\frac{2y = x + 6}{2} = \frac{x + 6}{2}$   
 $y = \frac{1}{2}x + 3$

Identify the slope and y intercept of the following lines and then graph them.

3.  $y = -4x - 4$

$m = -4$

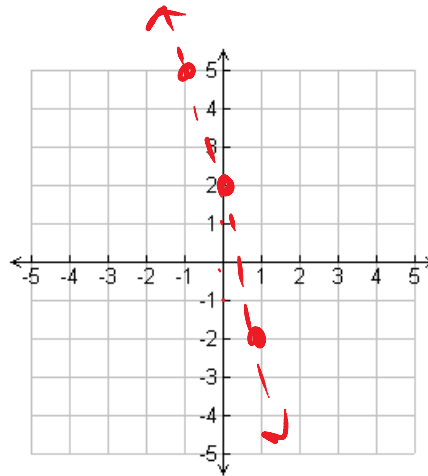
$b = (0, -4)$



4.  $y = 2 - 4x$

$m = -4$

$b = (0, 2)$



5. What best describes the equations in numbers 3 and 4? Parallel, Perpendicular, or Neither? Explain why.

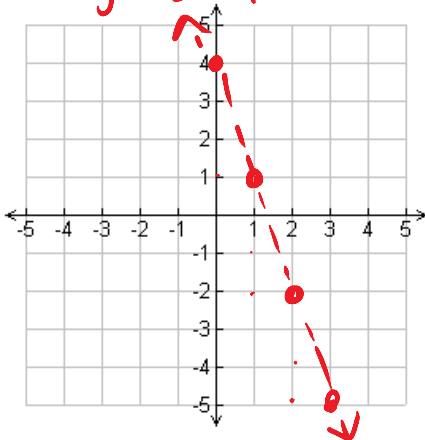
Parallel. because both equations have a slope of  $-4$ .

6.  $3x + y = 4$

$\frac{-3x - 3x}{-3x} = \frac{-3x + 4}{-3x}$   
 $y = -3x + 4$

$m = -3$

$b = (0, 4)$

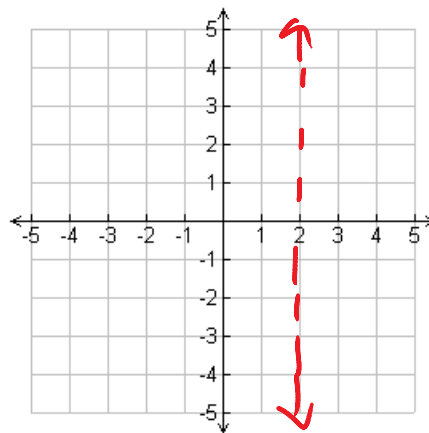


7.  $6x = 12$

$x = 2$

$m = \text{undef.}$

$b = \text{none}$



8. What best describes the equations in numbers 6 and 7? Parallel, Perpendicular, or Neither? Explain why.

Neither, because slopes are not the same and not opp reciprocals.