Name _____ Test Date _____ Period _____

Chapter 3: Parallel Lines and Transversals

3-7 Equations of Lines

Write Equations of Lines

You can write an equation of a line if you are given any of the following information:

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-
-

Slope-Intercept Form

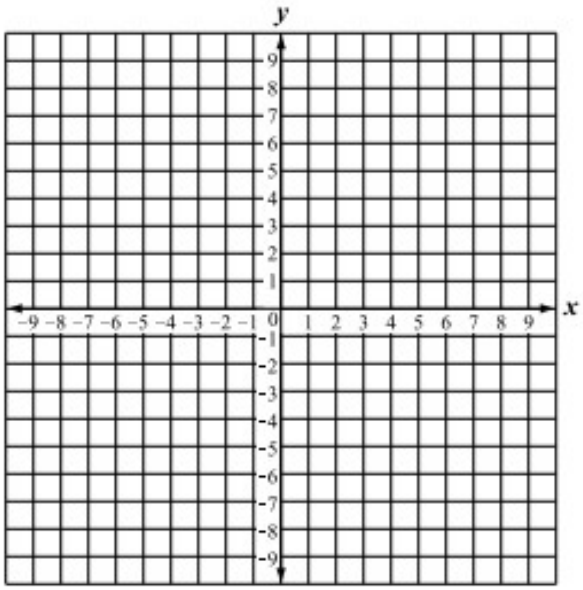
The **slope-intercept form** of the equation is

Write an equation in slope-intercept form of the line having the given slope and y-intercept or given points. Then graph the line.

1. m: 2, b: -3

2. m: $-\frac{1}{2}$, b: 4

3. *m: 0, b:-2*



Point-Slope Form

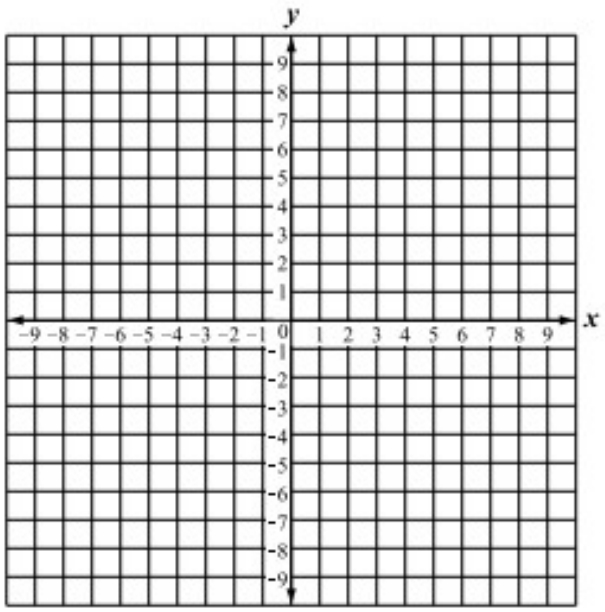
The **point-slope form** of the equation is

Write an equation in point-slope form of the line having the given slope that contains the given point. Then graph the line.

1. $m = -\frac{5}{2}$, (0,-3)

2. m = -2, (4, -2)

3. m=0, (-2,5)



Name _____ Test Date _____ Period _____

Chapter 3: Parallel Lines and Transversals

3-4 Equations of Lines

Exercises

Find the equation of a line passing through the given point and parallel to the given equation.

1. (-3 , -4) and y = 1/2 x + 4
2. (-4 , 0) and -2x + 5y = 10

Find the equation of a line passing through the given point and perpendicular to the given equation. Write your answer in slope-intercept form.

1. (-3 , -3) and y = - 4/3 x + 1
2. (-2 , -1) and x + 3y = 3

Determine if the given pair of lines is parallel, perpendicular, or intersecting.

1. y = 3/2 x + 5 and -2x + 3y = 21

Write the equation of a line in slope-intercept form that is perpendicular to another line which has a slope of 3 and the two lines point of intersection if (2,4)