

Slope-Intercept Form

Write the equation that describes each line in slope-intercept form.

1. slope = $\frac{2}{3}$; y-intercept = 2

$y = \underline{\hspace{1cm}}x + \underline{\hspace{1cm}}$

2. slope = -1; y-intercept = -8

$y = \underline{\hspace{1cm}}x - \underline{\hspace{1cm}}$

3. slope = -2; (3, 5) is on the line.

Find the y-intercept: $y = mx + b$

$5 = (-2)(\underline{\hspace{1cm}}) + b$

$5 = \underline{\hspace{1cm}} + b$

$+ \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} = b$

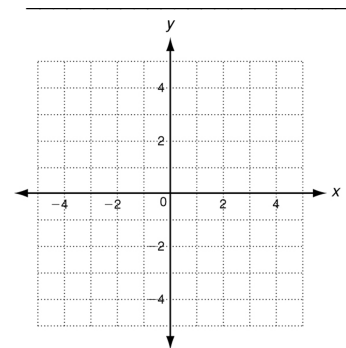
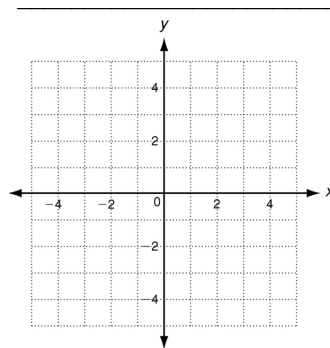
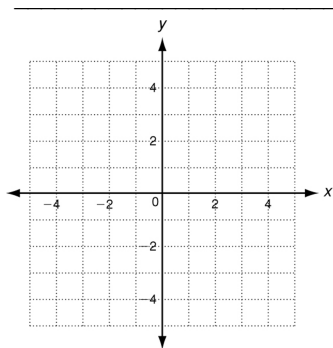
Write the equation: $y = \underline{\hspace{1cm}}x + \underline{\hspace{1cm}}$

Write each equation in slope-intercept form. Then graph the line.

4. $y - 2x = -4$

5. $2x + y = 3$

6. $2x + 3y = 6$



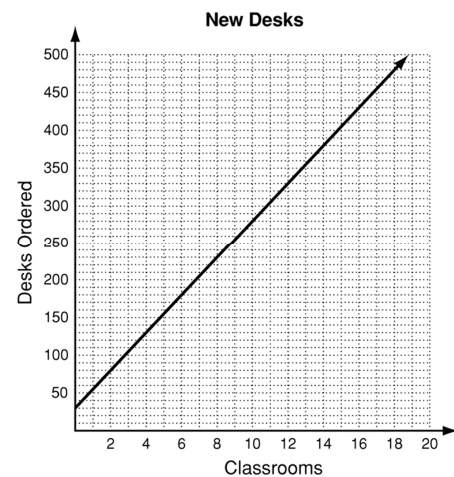
7. A school orders 25 desks for each classroom, plus 30 spare desks. The total number ordered as a function of the number of classrooms is shown in the graph.

a. Identify the slope and y-intercept and describe their meanings. slope - _____

y-intercept - _____

b. Write the equation represented by the graph.

c. Find the total number of desks ordered if there are 24 classrooms.



Write each equation in slope-intercept form. Then graph the line.

8. $4x - 8y = 8$

9. $x + 5y = -15$

10. $-3x + 4y = 10$
