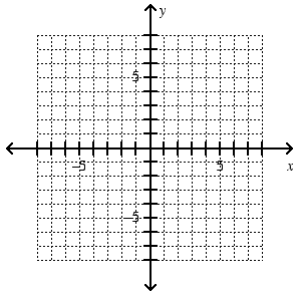
Assignment 21

1. Graph a line starting with the point (6,3) that has a slope of $\frac{3}{2}$.



Write the equation of the line.

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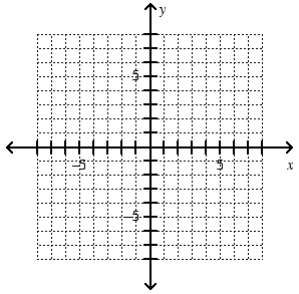
2. Graph a line that passes through points (4,–3) and (2,1).



Write the equation of the line.

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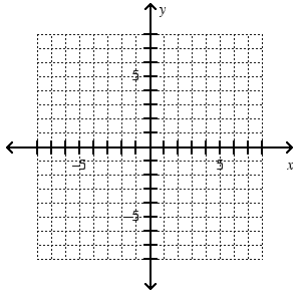
3. Graph a line that passes through points (–2,–3) and (–2,5).



Write the equation of the line.

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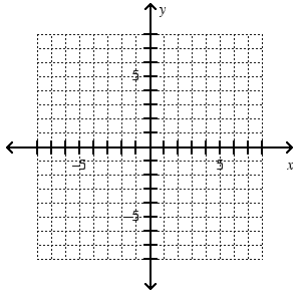
4. Graph a line starting with the point (–4,–2) that has a slope of 0.



Write the equation of the line.

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Find the slope of the following pairs of points using the slope formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$.

1. (1,2) ; (5,–6)

2. (–2,–3) ; (3,2)

3. (–1,2) ; (4,2)

4. (–3,2) ; (–9,–2)

5. (6,3) ; (6,–3)

6. (–4,0) ; (0,8)

Name: _____

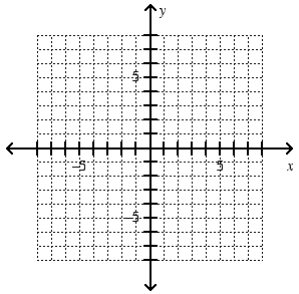
1. Write the equation of the line that has a slope of -3 and and passes through the point $(2,6)$.

2. Write the equation of the line that has a slope of $\frac{1}{2}$ and and passes through the point $(-6,-1)$.

3. Write the equation of the line that has a slope of $-\frac{1}{4}$ and a *y*-intercept of 5.

4. Write the equation of the line that has a slope of $-\frac{4}{3}$ and and passes through the point $(-12,9)$.

1. Graph a line parallel to $y = \frac{1}{2}x + 5$ that passes through $(4,0)$.



Write the equation of the line.

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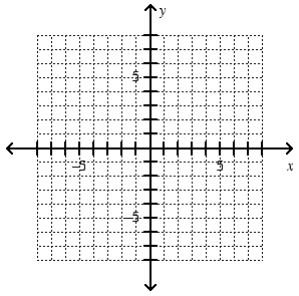
2. Graph a line parallel to $y = -\frac{4}{3}x$ that passes through $(6,-3)$.



Write the equation of the line.

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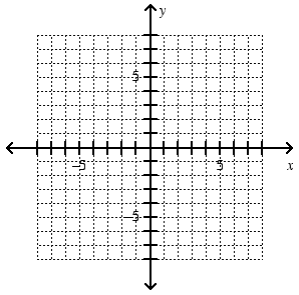
3. Graph a line parallel to $y = x$ that passes through $(-3,-5)$.



Write the equation of the line.

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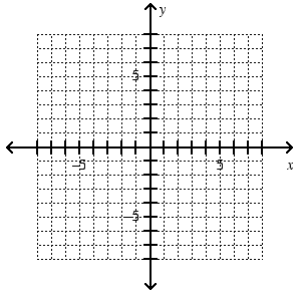
4. Graph a line parallel to $y = \frac{3}{2}x + 5$ that passes through $(-4,-6)$.



Write the equation of the line.

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1. Write the equation of the line that is parallel to $y = -\frac{1}{2}x - 5$ and passes through $(4,1)$.

2. Write the equation of the line that is parallel to $y = x + 6$ and passes through $(-2,-5)$.

3. Write the equation of the line that is parallel to $y = \frac{2}{3}x$ and passes through $(0,5)$.

4. Write the equation of the line that is parallel to $y = -3x$ and has a $y-$intercept of 4.

Point Slope Practice

Write the equation of each line in **point slope form** through the given point with the given slope. Remember point-slope form is: $y - y_0 = m(x - x_0)$.

1. $(-1,3)$; $m = 2$

2. $(4,-3)$; $m = -\frac{1}{2}$

3. $(6,1)$; $m = \frac{3}{5}$

4. $(-2,5)$; $m = -1$

2. $(5,4)$; $m = -\frac{2}{3}$

6. $(8,-1)$; $m = \frac{5}{4}$