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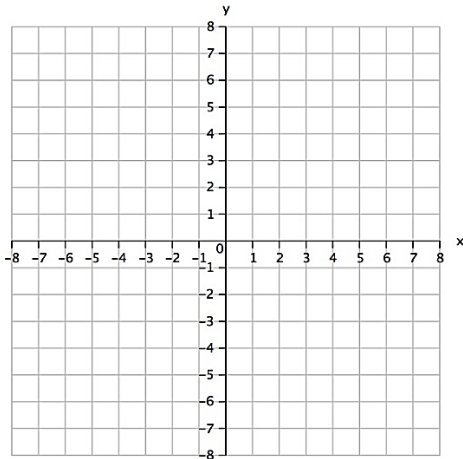
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Unit 5 Connections to Algebra

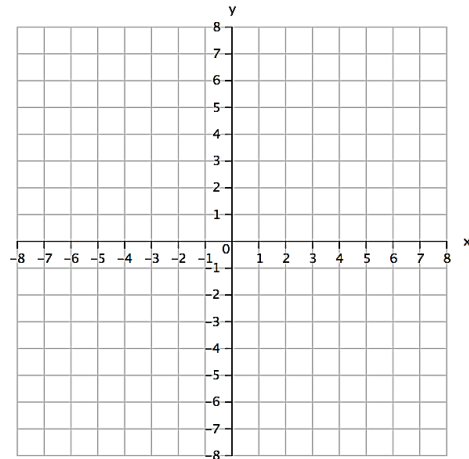
Graphing and Writing Linear Equations

Determine whether the graphs of each pair of equations are parallel, perpendicular, or neither

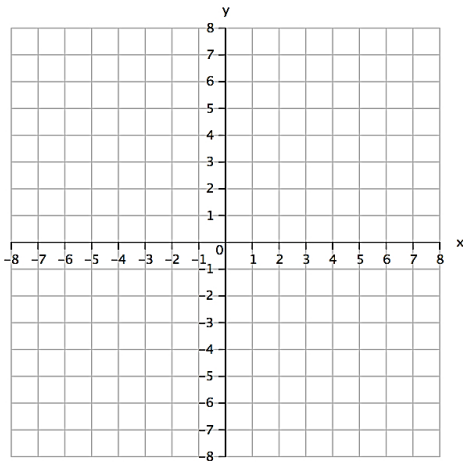
1. $y = 3x + 4$
 $y = 3x + 7$



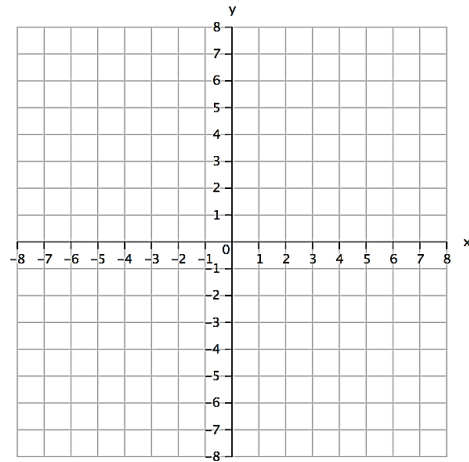
2. $y = -4x + 1$
 $4y = x + 8$



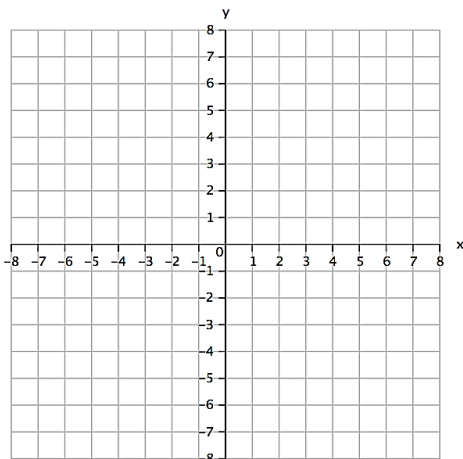
3. $y = 2x - 5$
 $y = 5x - 5$



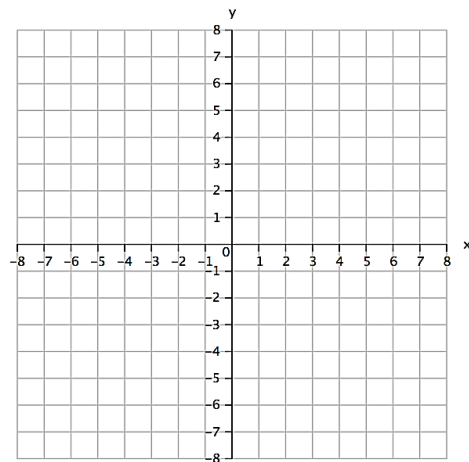
4. $y = -\frac{1}{3}x + 2$
 $y = 3x - 5$



5. $y = \frac{3}{5}x - 3$
 $5y = 3x - 10$



6. $y = 4$
 $x = -6$



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Find the slope of the line through each pair of points.

7. $(8,10), (-7,4)$

8. $(-3,1), (-7, 2)$

9. $(-2, -4) (4,-1)$

State the slope of each line.

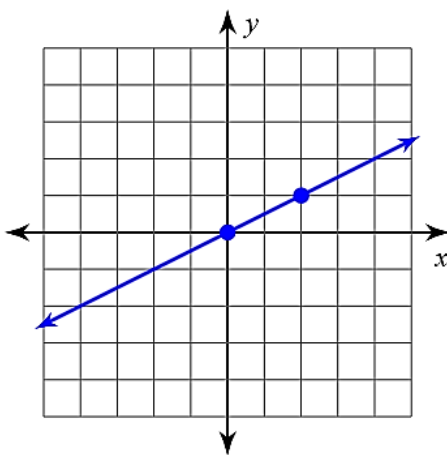
10. $y = -5x - 1$

11. $y = \frac{1}{3}x - 4$

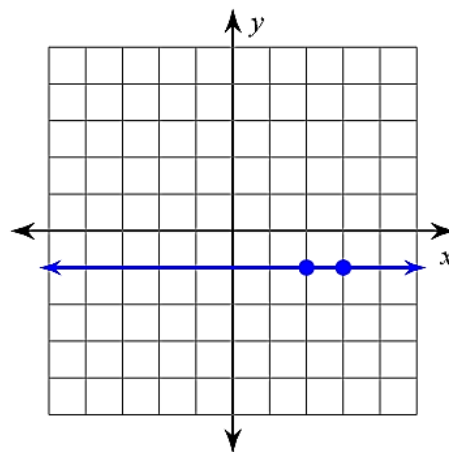
12. $2x + 3y = 9$

Write the equation of the line in slope intercept form.

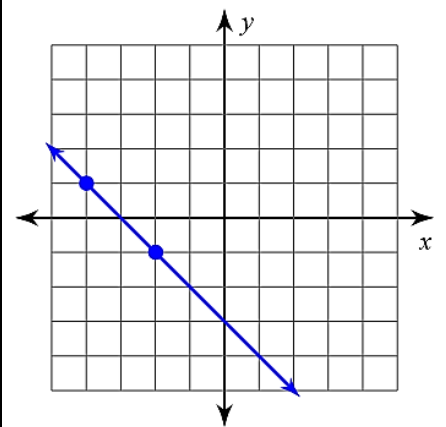
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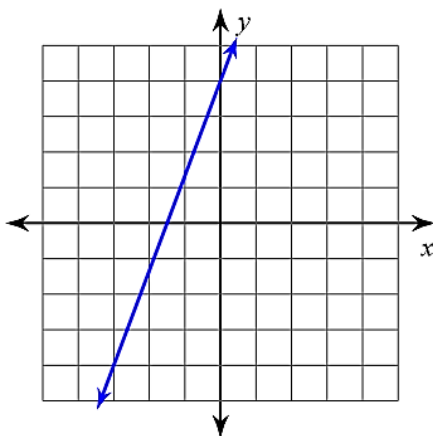
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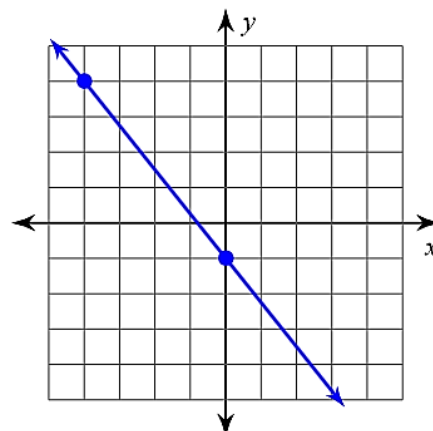
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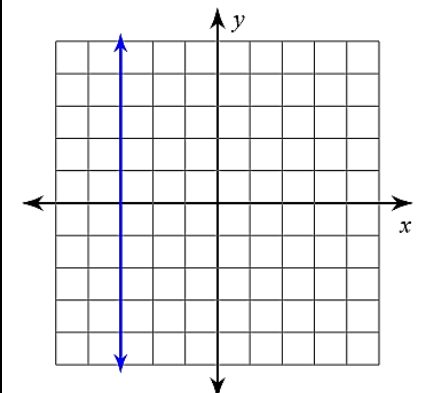
16.



17.



18.



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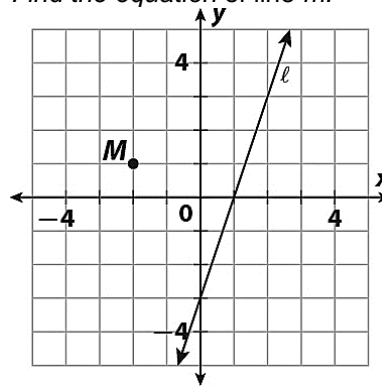
Write the slope-intercept for of the equation of the line described.

1. through: $(-2,-1)$, parallel to $y = 3x + 3$

2. through: $(1,4)$, parallel to $y = 8x + 2$

3. through: $(-2,-2)$, parallel to $y = \frac{3}{2}x + 2$

4. Line m is parallel to line ℓ and passes through point M .
Find the equation of line m .



5. through: $(-1,0)$, perp. to $y = -x + 5$

6. through: $(-5,0)$, perp. to $y = \frac{5}{2}x + 2$

7. through: $(-4,-3)$, perp. to $y = 2x - 2$

8. Line t is perpendicular to line ℓ and passes through point K . Find the equation of line t .

