2.2 Practice Problems

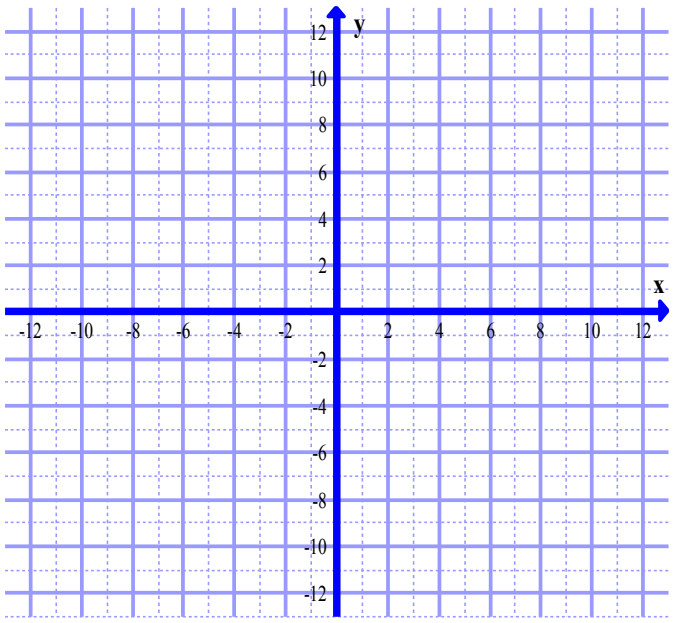
1. Find the slope of the line passing through each pair of points.
   a. $(5,8)$ and $(7,-12)$
   b. $(8,-3)$ and $(7,-3)$

2. Find an equation of the line that has a y-intercept of $(0,8)$ and has a slope of $m=-\frac{3}{5}$.

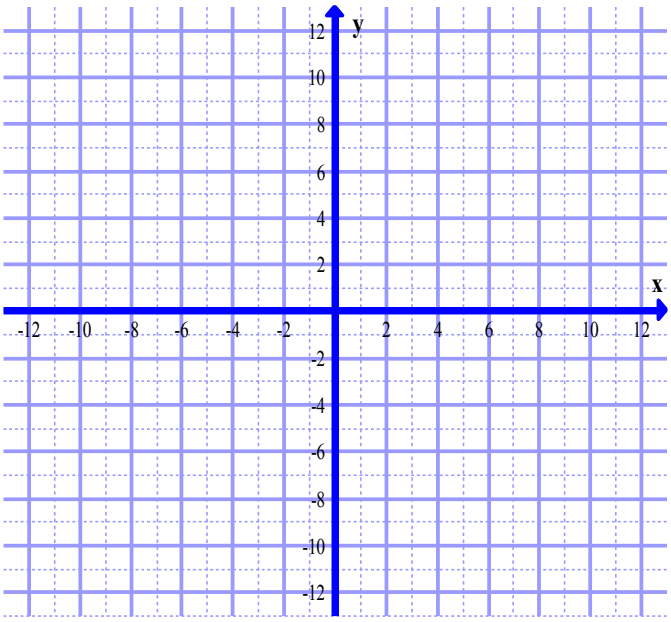
3. Write the point-slope form of the equation of a line with slope 3 that passes through the point $(5,-1)$. Then solve the equation for y.

4. Write the point-slope form of the equation of the line passing through the points $(2,3)$ and $(7,4)$. Then solve the equation for y.

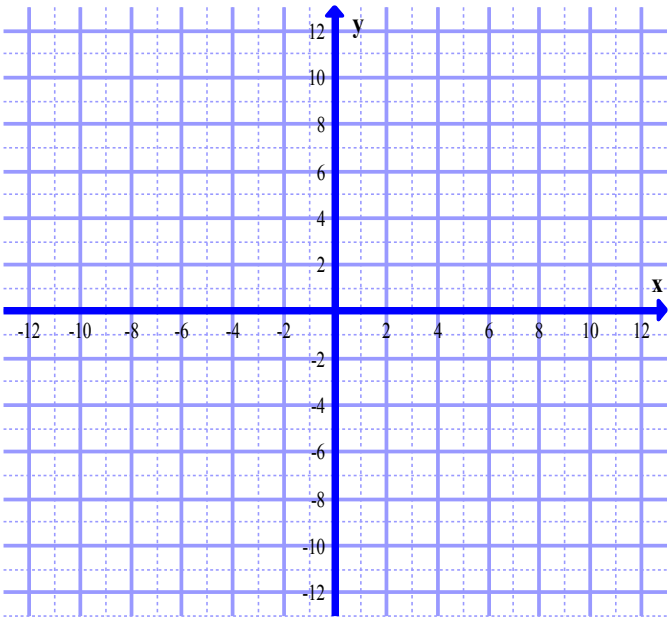
5. Graph the linear equation. $y=-\frac{2}{3}x+5$



6. Graph the linear equation. $y=-3$.



7. Graph the linear equation. $x=4$.



8. Find the slope and y-intercept of a line whose equation is $3x+5y-10=0$.

Use the given conditions to write an equations for each line in point-slope form and slope-intercept form. Use these directions for 9-12.

9. Passing through $(-2,5)$ and parallel to the line whose equation is $y=-4x+9$.

10. Passing through $(-1,-3)$ and parallel to the line whose equation is $4x+3y=12$.

11. Passing through $(5,-1)$ and perpendicular to the line whose equation is $y=-2x+3$.

12. Passing through $(7,1)$ and perpendicular to the line whose equation is $3x+5y=15$.