

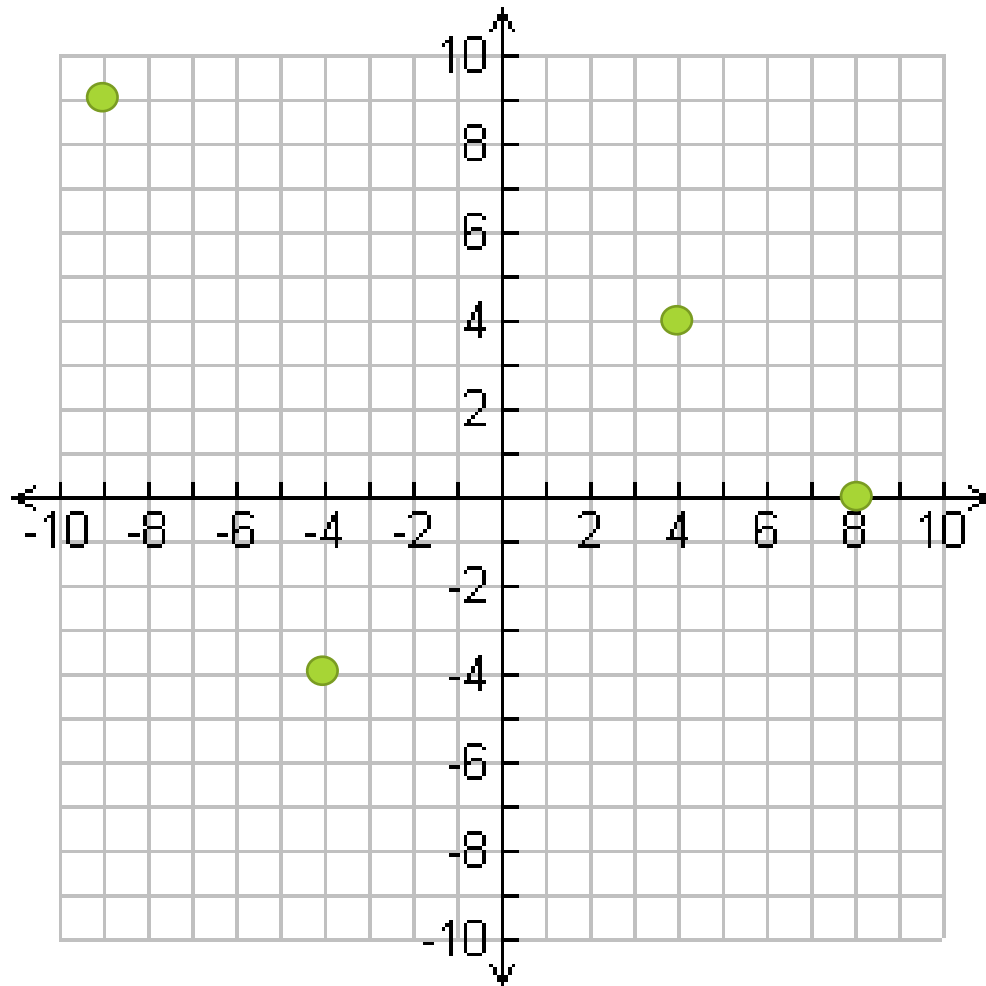
Algebra 1 Unit 4 Review

Graphs of Equations

Standards

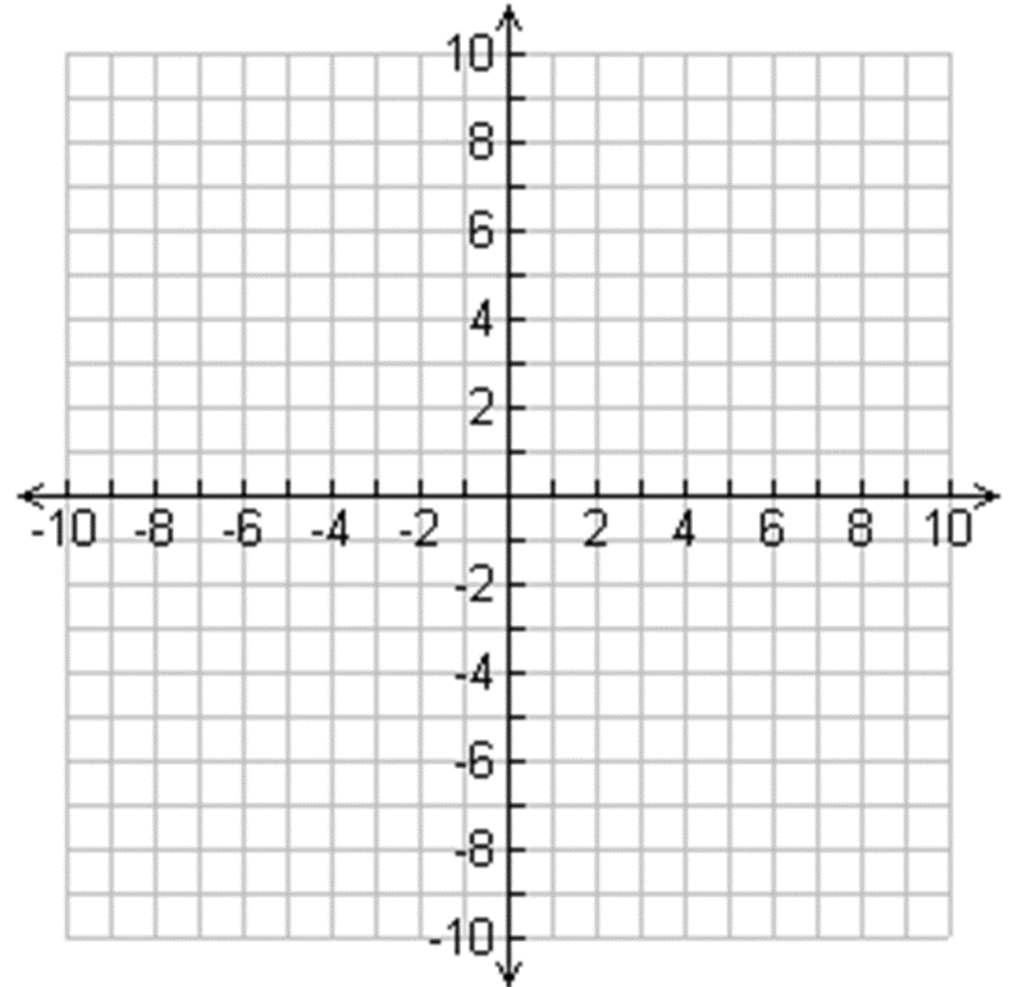
- Test Standards:
- Standard 32: Identify coordinates of points.
- Standard 33: Plot points in the coordinate plane.
- Standard 34: Graph a linear function using an equation.
- Standard 35: Determine the slope of a line given a graph.
- Standard 36: Determine the slope of a line given two points.
- Standard 37: Identify the x and y intercepts of a function given their graph.
- Standard 38: Graph horizontal and vertical lines and determine their slope.
- Standard 39: Identify slope and y-intercept of a given line in a real-world application and describe their importance to the context of the problem.

Standard 32: Identify coordinates of points.



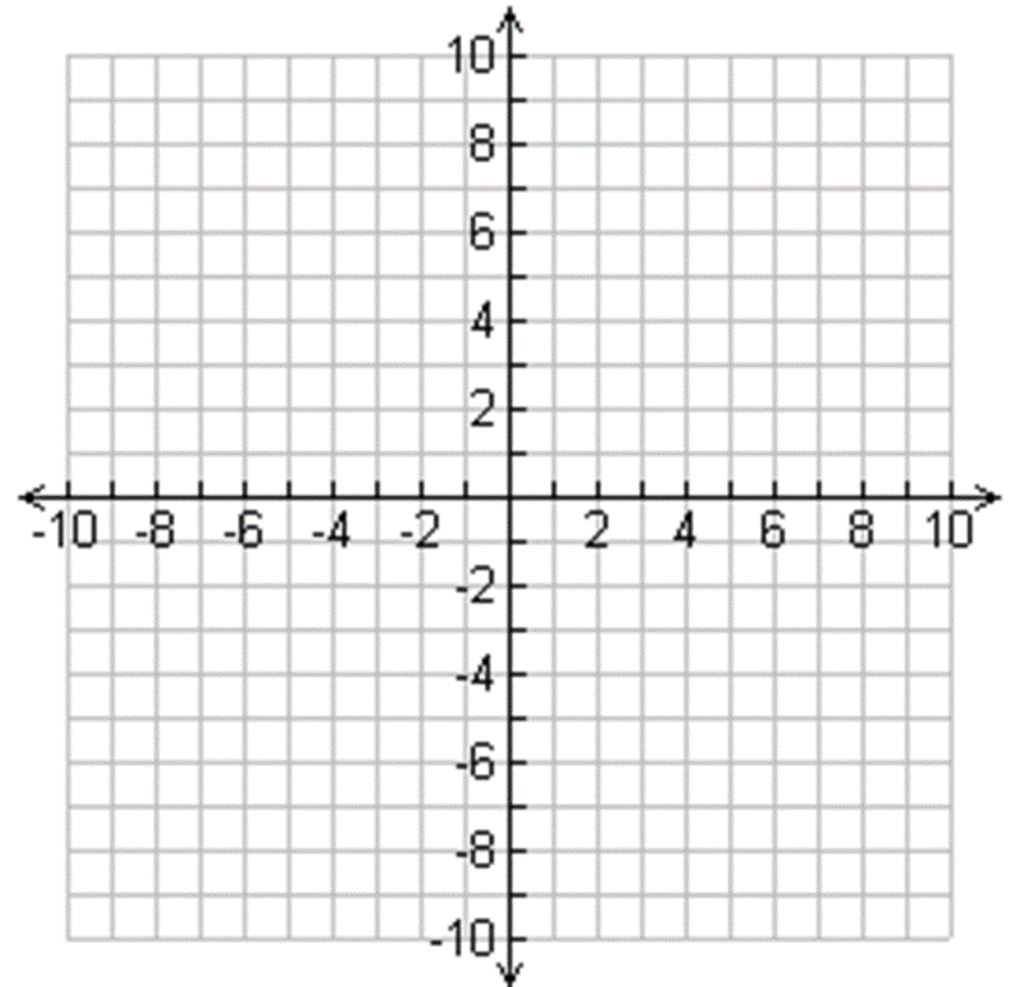
Standard 33: Plot points in the coordinate plane.

- Plot these points on the coordinate plane:
 - $(-2, 7)$
 - $(0, 1)$
 - $(3, -6)$
 - $(-4, -2)$



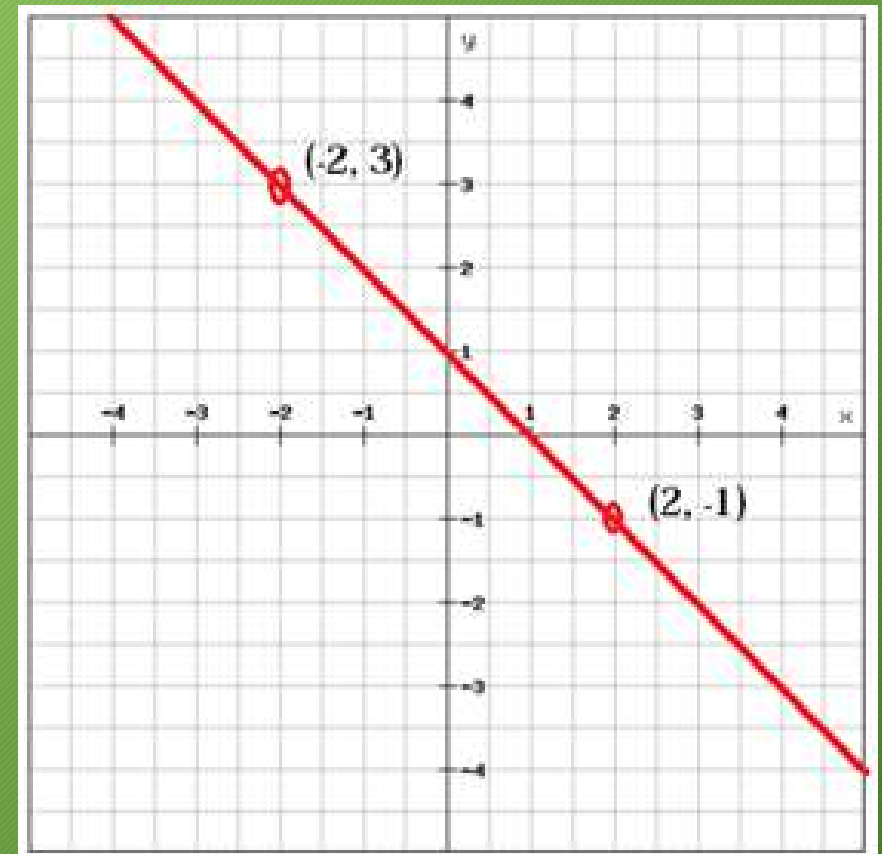
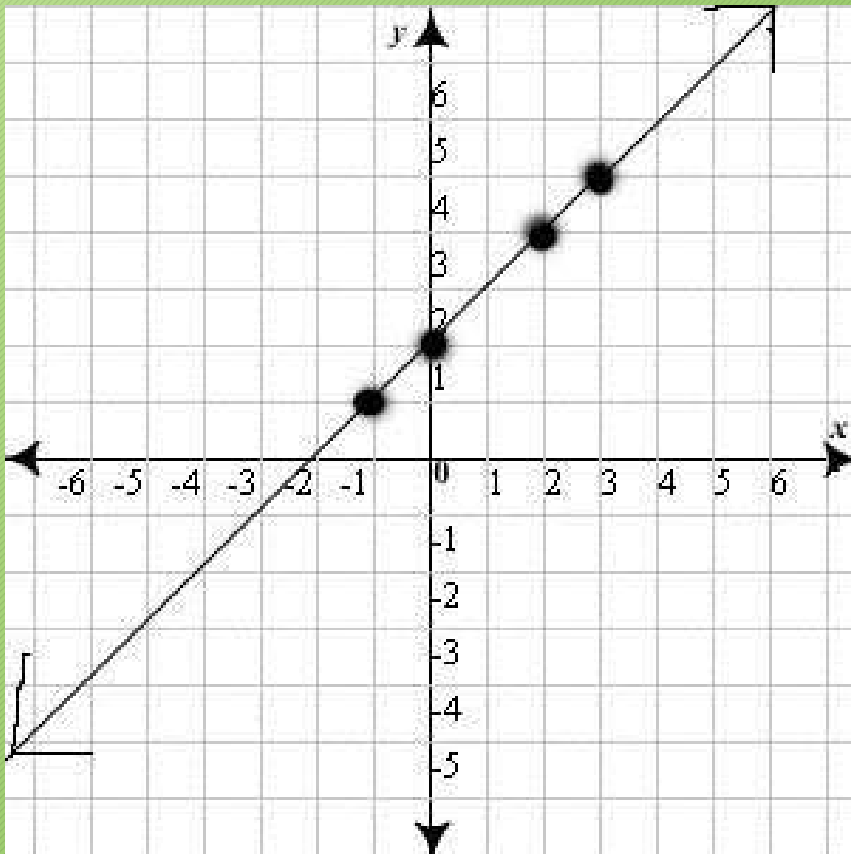
Standard 34: Graph a linear function.

- Graph the linear functions
 - $Y = 2x - 6$
 - $Y = -3x + 1$



Standard 35: Determine the slope of a line given a graph.

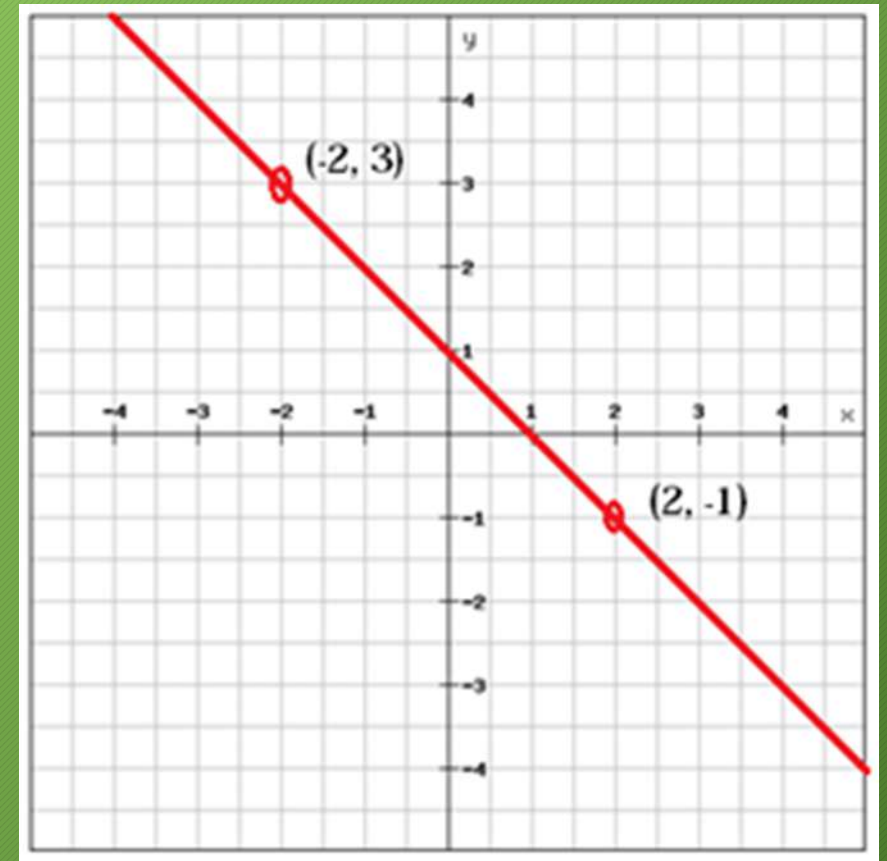
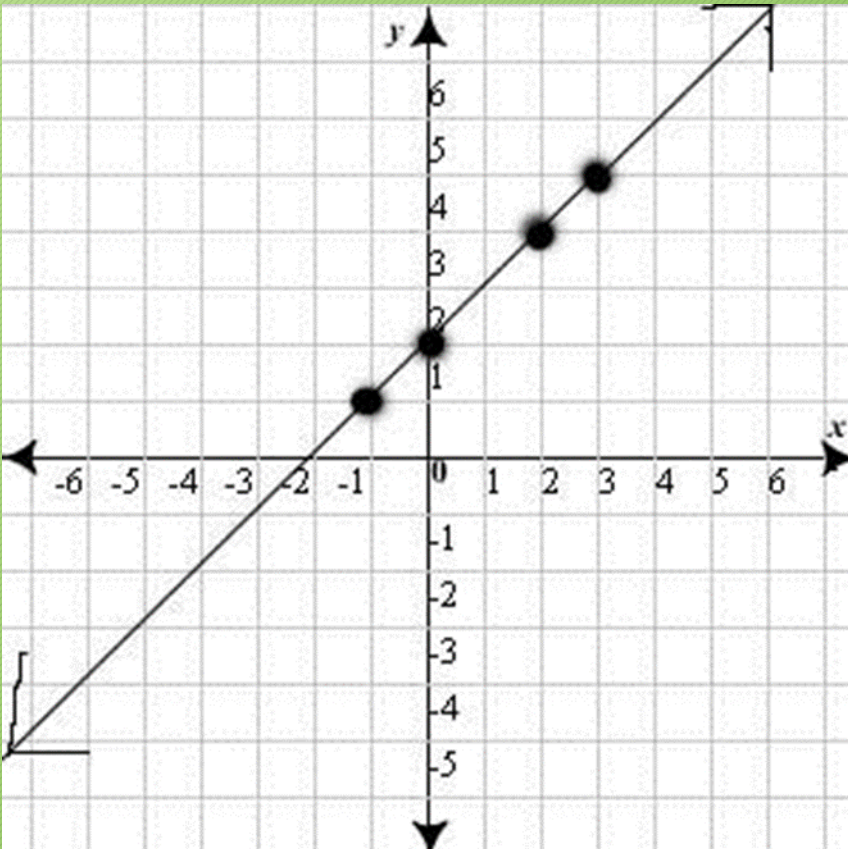
- Determine the slope of the lines, given the graphs.



Standard 36: Determine the slope of a line given two points.

- Determine the slope of the line through the given points.
 - $(-1, 6)$ and $(9, 23)$
 - $(-4, 12)$ and $(-1, 9)$

Standard 37: Identify the x and y intercepts of a function given their graph.



Standard 38: Graph horizontal and vertical lines and determine their slope.

- Draw a graph of a horizontal line. Give its slope
- Draw a graph of a vertical line. Give its slope.

Standard 39: Identify slope and y-intercept of a given line in a real-world application and describe their importance to the context of the problem.

- Laura lights a candle in her kitchen. The height of the candle is represented by the equation $y = -\frac{1}{2}x + 6$, where x is the time in hours the candle has been burning and y is the height of the candle in inches.
 - What was the height of the candle before Laura lit it?
 - What is the slope of the equation? What does this mean in the context of the problem?