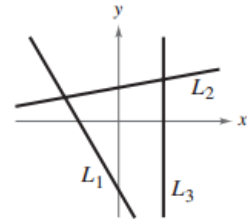


Precalculus Unit 1: 1-1 Homework Lines in the Plane

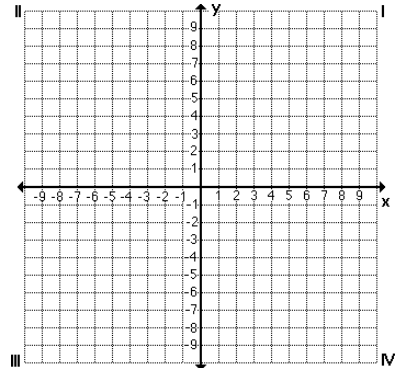
1. Identify the line that has the indicated slope.

(a) $m = \frac{2}{3}$ (b) m is undefined. (c) $m = -2$



2. For the equation $5x - 2y + 4 = 0$

- a. Find the slope and the y -intercept.
b. Draw a sketch on the provided graph.



3. Write an equation for the line that passes through the given point and has the indicated slope.

- a. Point: $(0, -2)$ Slope: $m = 3$
b. Point: $(5, 1)$ Slope: $m = 4$
c. Point: $(6, -1)$ Slope: *undefined*
d. Point: $\left(\frac{-1}{2}, \frac{3}{2}\right)$ Slope: $m = 0$

4. Write the equation of the line that passes through the points $\left(2, \frac{1}{2}\right)$ and $\left(\frac{1}{2}, \frac{5}{4}\right)$.
5. Write the slope-intercept equation for the line that passes through the point $\left(\frac{-2}{3}, \frac{7}{8}\right)$ that is:
- Parallel to the line $3x + 4y = 7$
 - Perpendicular to the line $3x + 4y = 7$
6. The following are slopes of lines representing daily revenue (y) in terms of time (x) in days. Use each slope to interpret any change in daily revenues for a one-day increase in time.
- The line has a slope of $m = 400$.
 - The line has a slope of $m = 100$.
 - The line has a slope of $m = 0$.
7. A school district purchases a high volume printer, copier, and scanner for \$25,000. After 10 years, the equipment will have to be replaced. At that time the value is expected to be \$2,000. Write a linear equation giving the value, V , in terms of time, t .
8. Use your knowledge of measuring temperature in degrees Celsius and degrees Fahrenheit to write a linear equation that gives the temperature in degrees Fahrenheit in terms of degrees Celsius.