

Practice: Find an Equation for a Line Given the Slope and a Point

- The slope and a y -intercept are given for different lines. Find the equation of each line.
 - $m = 5$ $b = 2$
 - $m = 3$ $b = -4$
 - $m = -2$ $b = 0$
 - $m = 4$ $b = 8$
 - $m = -6$ $b = -1$
 - $m = -\frac{3}{4}$ $b = 12$
 - $m = \frac{2}{3}$ $b = -5$
 - $m = \frac{1}{5}$ $b = -2$
- The slope and a point on a line are given for different lines. Find the equation of each line.
 - $m = 1$ P(0, 3)
 - $m = -1$ P(4, 0)
 - $m = 2$ P(1, 1)
 - $m = -3$ P(-4, 2)
 - $m = \frac{1}{5}$ P(10, 4)
 - $m = -\frac{1}{4}$ P(-4, -1)
 - $m = \frac{2}{5}$ P(-10, 3)
 - $m = \frac{1}{8}$ P(6, 0)
- Find the equation of a line
 - with slope 4, passing through (1, 1)
 - with slope -1 , passing through (5, 0)
 - with slope $\frac{1}{2}$, passing through (8, 2)
 - parallel to a line with slope 5, and through $(-1, 6)$
 - perpendicular to a line with slope 2, and through (2, 5)
 - perpendicular to $y = \frac{1}{5}x$, and through the origin
 - parallel to $3y = 6x$, and through $(-2, 3)$
 - perpendicular to $y - x = 1$, and through (3, 3)
- A line passes through (2, 5) and (4, 0).
 - Use the coordinates of the two points on the line to find the slope.
 - Use the slope from part a) and one of the points to find the y -intercept.
 - Write an equation of the line.