

Worksheet 2-2-3 ~ Slope-Intercept Solutions

To find the equation of a line with slope ($m = 4$) containing the point (3, 2) in $y = mx + b$ form:

1. Create your template equation using the given m : $y = 4x + b$
2. Substitute the values of x and y from your point (3, 2) into the equation: $2 = 4 \cdot (3) + b$
3. Solve for b : $b = -10$
4. Rewrite the equation with the REAL value of b and circle your solution: $y = 4x - 10$

Find the equation in $y=mx+b$ form for the following (do not graph):

1) $m = 3$, containing (2,3)

2) $m = 3$, containing (-4,7)

3) $m = -4$, containing (0,3)

4) $m = -5$, containing (7,2)

5) $m = 0$, containing (2,3)

6) $m = \text{undefined}$, containing (2,3)

7) $m = \frac{2}{3}$, containing (3,2)

8) $m = -\frac{3}{2}$, containing (2,-3)

9) $m = \frac{5}{7}$, containing (7,8)

10) $m = -\frac{6}{5}$, containing (5,-3)

11) $m = 12$, containing (0,0)

12) $m = -\frac{4}{9}$, containing (7,2)