General Algebra II
Functions, Equations and Graphs Unit

Name _____
Period _____ Date _____

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) $m = undefind$, *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* $(7,2)$