

Name: \_\_\_\_\_

Writing Linear Equations Worksheet

**For 1 – 3, write an equation of the line with the given slope and y-intercept (SLOPE-INTERCEPT FORM).**

1.  $m = 4, b = -4$                       2.  $m = \frac{4}{3}, b = 6$                       3.  $m = 8, b = 0$

**For 4 – 9, write an equation of the line that passes through the given point and has the given slope.**

**(POINT-SLOPE FORM)**

4.  $(2, 1), m = -2$                       5.  $(-4, 3), m = 5$                       6.  $(7, -5), m = 1$

**(SLOPE-INTERCEPT FORM)**

7.  $(-1, -10), m = 3$                       8.  $(5, -2), m = -1$                       9.  $(-3, -7), m = 2$

**For 10 – 12, write an equation of the line that passes through the given points.**

**(SLOPE-INTERCEPT FORM)**

10.  $(-2, 1) \text{ \& } (2, 4)$                       11.  $(-3, -1) \text{ \& } (3, 2)$                       12.  $(4, -2) \text{ \& } (6, -3)$

**For 13 – 15, write an equation of the line that passes through the given points.**

**(STANDARD FORM)**

13.  $(3, -7)$  &  $(-2, 3)$

14.  $(-6, 1)$  &  $(-5, 4)$

15.  $(10, -4)$  &  $(6, -10)$

**For 16 – 18, write an equation of the line that passes through the given point and is PERPENDICULAR to the given line.**

16.  $(1, 3)$ ,  $y = 2x - 1$

17.  $(1, 1)$ ,  $x - 2y = 14$

18.  $(7, -3)$ ,  $y = 8$

**For 19 – 21, write an equation of the line that passes through the given point and is PARALLEL to the given line.**

19.  $(-2, 1)$ ,  $y = 2x + 5$

20.  $(10, -12)$ ,  $3x + 4y = 4$

21.  $(-3, -5)$ ,  $y = 12 + x$

**For 22:**

**A) Graph the equation on the axis using slope-intercept form.**

**B) Graph a PARALLEL line to the given equation though  $(0, -1)$ .**

**C) Graph a PERPENDICULAR line to the given equation through the y-intercept.**

22.  $y = 3x + 4$



