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) & (2, 4)
11. (-3, -1) & (3, 2)
12. (4, -2) & (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. $y = 3x + 4$