

2. 1.)

From graph:

$$m = \frac{2}{1} \quad b = -5$$

$$y = 2x - 5$$

4. 3.)

From graph

$$m = -\frac{5}{3} \quad b = 0$$

$$y = -\frac{5}{3}x$$

6. 5.)

From graph

$$m = \frac{1}{2} \quad b = -4$$

$$y = \frac{1}{2}x - 4$$

8. 7.)

From graph

$$m = 1 \quad b = 0$$

$$y = 1x \text{ or } y = x$$

10. 9.)

Horizontal line

$$m = 0 \quad b = -3$$

$$y = -3$$

12. 11.)

$$m = -\frac{4}{5} \quad b = 1$$

$$y = -\frac{4}{5}x + 1$$

14. 13.)

$$m = \frac{4}{3} \quad b = 0$$

$$y = \frac{4}{3}x$$

16. 15.)

$$m = \frac{3}{7} \quad b = 5$$

$$y = \frac{3}{7}x + 5$$

18. 17.)

$$m = -\frac{2}{5} \quad b = 7$$

$$y = -\frac{2}{5}x + 7$$

20. 19.)

$$m = 2 \quad b = -2$$

$$y = 2x - 2$$

22. 21)

$$m = -1/4 \quad (4, -3)$$

$$x = 4 \quad y = -3$$

$$y = mx + b$$

$$-3 = -1/4(4) + b$$

$$-3 = -1 + b$$

$$-2 = b$$

$$y = -1/4x - 2$$

24. 23)

$$m = -1/5 \quad (5, 2)$$

$$x = 5 \quad y = 2$$

$$2 = -1/5(5) + b$$

$$2 = -1 + b$$

$$+1 \quad +1$$

$$3 = b$$

$$y = -1/5x + 3$$

26. 25)

$$m = 0 \quad (4, 1)$$

$$x = 4 \quad y = 1$$

$$1 = 0(4) + b$$

$$1 = b$$

$$y = 1$$

28. 27)

Slope = undefined  $(-1, -5)$

$$x = -1$$

30. 29)

$$m = -4 \quad (-2, 3) \quad x = -2 \quad y = 3$$

$$3 = -4(-2) + b$$

$$3 = 8 + b$$

$$-8 \quad -8$$

$$-5 = b$$

$$y = -4x - 5$$

32. 31)

$$(0, 1) \quad (2, 2)$$

$$m = \frac{2-1}{2-0} = \frac{1}{2} \quad (0, 1) = b$$

$$y = 1/2x + 1$$

34. 33)

$$(-3, 1) \quad (-1, -5)$$

$$\frac{-5-1}{-1-(-3)} = \frac{-6}{2} = -3 = m$$

$$1 = -3(-3) + b$$

$$1 = 9 + b$$

$$-8 = b$$

$$(-1, -5)$$

$$m = -3$$

$$-5 = -3(-1) + b$$

$$-5 = 3 + b$$

$$-8 = b$$

$$y = -3x - 8$$

36. 35)

$$(0, -1) \quad (4, -4)$$

$$m = \frac{-4-(-1)}{4-0} = \frac{-3}{4} \quad (0, -1) = b$$

$$y = -3/4x - 1$$

38. 37)

$$(4, -3) \quad (5, -5)$$

$$\frac{-5-(-3)}{5-4} = \frac{-2}{1} = -2$$

$$-3 = -2(4) + b$$

$$-3 = -8 + b$$

$$5 = b$$

$$m = -2$$

$$x = 5$$

$$y = -5$$

$$-5 = -2(5) + b$$

$$-5 = -10 + b$$

$$5 = b$$

$$y = -2x + 5$$

40. 39)

$$(-2, 3) \quad (0, -1)$$

$$m = \frac{-1-3}{0-(-2)} = \frac{-4}{2} = -2$$

$$(0, -1) = b$$

$$y = -2x - 1$$