

Name: _____

Date: _____

Writing Linear Equations **Answers**

Section I. Write an equation in slope-intercept AND standard form using the given information. SUPER EASY

1. $m = 5, \quad b = -1$

$$y = 5x - 1 \quad 5x - y = 1$$

2. $m = \frac{1}{4}, \quad y - \text{intercept} = 7$

$$y = \frac{1}{4}x + 7 \quad x - 4y = -28$$

3. $m = \frac{-2}{3}, \quad y - \text{intercept} = 5$

$$y = \frac{-2}{3}x + 5 \quad 2x + 3y = 15$$

4. $m = -\frac{4}{5}, \quad b = \frac{3}{5}$

$$y = -\frac{4}{5}x + \frac{3}{5} \quad 4x + 5y = 3$$

Section II. Write an equation in slope-intercept AND standard form using the given information. MEDIUM

5. $m = -4, \text{ and passes thru } (9, -2)$

$$y = -4x + 34 \quad 4x + y = 34$$

6. $m = 2, \text{ and passes thru } (0, -5)$

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

7. $m = -\frac{1}{5}, \text{ and passes thru } (-5, -1)$

$$y = -\frac{1}{5}x - 2 \quad x + 5y = -10$$

8. $m = \frac{3}{2}, \text{ and passes thru } (2, 2)$

$$y = \frac{3}{2}x - 1 \quad 3x - 2y = 2$$

9. $m = -\frac{1}{4}, \text{ and passes thru } (0, 6)$

$$y = -\frac{1}{4}x + 6 \quad x + 4y = 24$$

10. $m = 0, \text{ and passes thru } (4, -7)$

$$y = -7$$

11. $m = \frac{2}{3}, \text{ and passes thru } (12, 11)$

$$y = \frac{2}{3}x + 3 \quad 2x - 3y = -9$$

12. $m = \text{undefined}, \text{ and passes thru } (-21, 8)$

$$x = -21$$

Write an equation in A) point slope, B) slope-intercept AND C) standard form using the given information. **DIFFICULT**

12. $(4, 2)$ and $(0, 1)$

A) $y - 2 = \frac{1}{4}(x - 4)$ or $y - 1 = \frac{1}{4}(x - 0)$
 B) $x - 4y = -4$
 C) $y = \frac{1}{4}x + 1$

13. $(8, 3)$ and $(2, 0)$

A) $y - 3 = \frac{1}{2}(x - 8)$ or $y - 0 = \frac{1}{2}(x - 2)$
 B) $x - 2y = 2$
 C) $y = \frac{1}{2}x - 1$

15. $(8, 1)$ and $(-4, 1)$

A) $y = 1$
 B) $y = 1$
 C) $y = 1$

16. $(0, -1)$ and $(3, -5)$

A) $y + 1 = -\frac{4}{3}(x - 0)$ or $y + 5 = -\frac{4}{3}(x - 3)$
 B) $4x + 3y = -3$
 C) $y = -\frac{4}{3}x - 1$

17. $(-1, 3)$ and $(2, 6)$

A) $y - 3 = 1(x + 1)$ or $y - 6 = 1(x - 2)$
 B) $x - y = 4$
 C) $y = x - 4$

18. $(-4, 2)$ and $(2, 1)$

A) $y - 2 = -\frac{1}{6}(x + 4)$ or $y - 1 = -\frac{1}{6}(x - 2)$
 B) $x + 6y = 8$
 C) $y = -\frac{1}{6}x + 1\frac{1}{3}$

19. $(3, 1)$ and $(-6, 4)$

A) $y - 1 = -\frac{1}{3}(x - 3)$ or $y - 4 = -\frac{1}{3}(x + 6)$
 B) $x + 3y = 6$
 C) $y = -\frac{1}{3}x + 2$

20. $(-7, 12)$ and $(-7, -15)$

A) $x = -7$
 B) $x = -7$
 C) $x = -7$