

Math 200 Practice Test 2

1. Is the ordered pair a solution to the given equation? $(5, -2)$, $4x - 2y = 16$

Find the x -intercept and y -intercept, if possible.

2. $2x - 8y = -40$

3. $y = -4x + 10$

Find the slope of the line that passes through the given points.

4. $(-5, 3)$ and $(-3, 9)$

5. $(6, -2)$ and $(3, 10)$

Find the slope and the y -intercept of the given line.

6. $y = -2x + 7$

7. $5x + 3y = 18$

Graph.

8. $y = \frac{2}{5}x + 2$

9. $y = 3x - 6$

10. $-3x + 2y = 12$

11. $y = -4$

Evaluate the given function.

12. $f(x) = 9x + 7$, $f(-2)$

13. $f(x) = 3x + 7$, $f(5a - 1)$

14. Find the equation of a line with a slope of -5 and y -intercept $(0, -3)$.

15. Find the slope-intercept form of the equation of a line with a slope of $-\frac{3}{2}$ that passes through the point $(-4, 9)$.

16. Find the slope-intercept form of the equation of a line with the given slope that passes through the points $(-2, 1)$ and $(2, -7)$.

17. What type of line, horizontal or vertical, has a slope of 0?

18. Are the two given lines parallel, perpendicular, or neither?

$$12x - 9y = 17, \quad -8x + 6y = 10$$

19. Graph the inequality on a plane. $2x + 7y \geq 14$

20. Martina has started a new business hosting candle parties. Start-up costs, including a franchise fee, were \$6400. Martina pays \$3.50 for each box of candles and sells each box of candles for \$7.50.

a) Find the cost function $C(x)$, the revenue function $R(x)$, and the profit function $P(x)$.

b) How many boxes of candles does Martina need to sell in order to break even?