SHORT ANSWER. Provide the answer that is correct for the problem.

Simplify the expression.

1) $7(7 - 12)^3$ 1) _____

2) $|2(-2)| - |1 - 10|$ 2) _____

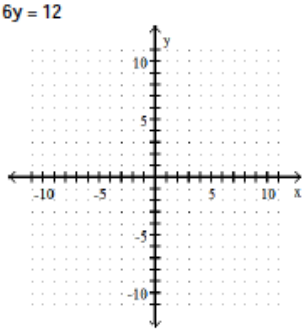
3) $25 - [10 - (6 - 8)] + (3 - 5)^3$ 3) _____

Solve the equation.

4) $12(x + 1) = 2(6x + 1) + 10$ 4) _____

Graph the line. Make sure that you provide at least three points on your graph

5) $2x - 6y = 12$ 5) _____



Write an equation of the line with the given slope and containing the given point. Write the equation in the form $y = mx + b$ (Slope Intercept Form).

6) Slope 4; through (-2, -7) 6) _____

Write an equation of the line with the given slope and containing the given point. Write the equation in point-slope form.

7) Slope $\frac{5}{4}$; through (0, 4) 7) _____

Find an equation of the line using slope-intercept form.

8) Through (-2, -20) and (5, 22) 8) _____

Find an equation of the line using point-slope form.

9) Through (7, 61) and (2, 21) 9) _____

Solve the compound inequality. Graph the solution set and write your answer in interval notation.

10) $-6x > -24$ and $x + 6 > 5$ 10) _____

11) $x \leq 2$ or $x \geq 7$ 11) _____

Use the product rule to simplify the expression. Write the result using exponents.

12) $(-7p^8)(7p^6)$ 12) _____

Use the power rule and the power of a product to simplify the expression.

13) $(-10x^3)^2$ 13) _____

Use the quotient rule to simplify the expression.

14) $\frac{63m^8n^{11}}{9m^7n^8}$ 14) _____

Simplify the expression.

15) $\left(\frac{14t^3}{7s^4}\right)^3$ 15) _____

16) $(5x^2 - xy - y^2) + (x^2 + 7xy + 5y^2)$ 16) _____

17) $(-16x^5 - 2x^3) - (-20x^5 - 12x^3)$ 17) _____

18) $(2x - 9)(3x - 9)$ 18) _____

19) $(3x + 7y)(3x - 7y)$ 19) _____

20) $(7y + 11)(6y^2 - 2y - 3)$ 20) _____

Bonus Problem.

21) $\left(-\frac{2}{3}x^2 - \frac{2}{5}x + \frac{1}{3}\right) + \left(\frac{1}{3}x^2 - \frac{4}{5}x + \frac{1}{2}\right)$ 21) _____