

Review Homework

Show all your work on a separate sheet of paper and circle your answer.

Solve the inequality.

- $a + 8 - 2(a - 12) > 0$
- $-5x - 7 < 28$
- $12 + 10w \geq 8(w + 12)$

Graph the equation.

- $y = -3$
- $x = -4$

Simplify the expression.

- $(x^9)^0(x^7)^2$
- $\frac{m^{-6}n^{-3}}{m^{-13}n^{-1}}$
- $7a^{-5}b^3$
- $-4x^3 \cdot 2y^{-2} \cdot 5y^5 \cdot x^{-8}$
- $(-5g^5h^6)^2(g^4h^2)^4$

Factor the expression.

- $x^2 - 10xy + 24y^2$
- $20x^2 + 22x - 12$
- $w^2 + 18w + 77$

Simplify the difference.

- $(-7x - 5x^4 + 5) - (-7x^4 - 5 - 9x)$

Solve the system using elimination.

- $5x + 8y = -29$
 $7x - 2y = -67$

- $5x = -25 + 5y$
 $10y = 42 + 2x$

- A jar containing only nickels and dimes contains a total of 60 coins. The value of all the coins in the jar is \$4.45. Solve by elimination to find the amount of nickels and dimes that are in the jar.

- Solve the formula for area of a trapezoid $A = \frac{h(b_1 + b_2)}{2}$ for b_1 .

Solve the system of equations using substitution.

- $3x + 2y = 7$
 $y = -3x + 11$

- You are driving to visit a friend in another state who lives 440 miles away. You are driving 55 miles per hour and have already driven 275 miles. Write and solve an equation to find how much longer in hours you must drive to reach your destination.

Solve the equation.

- $3p - 1 = 5(p - 1) - 2(7 - 2p)$

- $2 = \frac{10 + z}{-3}$

Find the slope and y-intercept of the line.

- $14x + 4y = 24$

- A line passes through $(1, -5)$ and $(-3, 7)$.

- Write an equation for the line in point-slope form.
- Rewrite the equation in slope-intercept form.

Simplify the product.

- $8p(-3p^2 + 6p - 2)$

- Your class hopes to collect at least 325 cans of food for the annual food drive. There were 132 cans donated the first week and 146 more the second week.

- Write an inequality that describes this situation. Let c represent the number of cans of food that must be collected by the end of the third week for your class to meet or surpass your goal.
- How many cans are needed to meet or surpass your goal?

Find the x- and y-intercept of the line.

- $2x + 3y = -18$

- Write $y = \frac{2}{3}x + 7$ in standard form using integers.