

Math 055 Exam #1

Find the value of the expression.

$$18 - 6^2 \cdot 11 - (-10)$$

Find the numerical value of the expression for a) $x = 4$ and b) $x = -8$.

$$\frac{3x - 7}{6x}$$

Solve the equation.

$$\frac{p}{3} - \frac{3}{2} = 4 + \frac{5p}{6}$$

$$-3(5(x + 1) - 2) - 2(x + 2) + 8 = 4$$

Solve the formula for the specified variable.

$$V = \frac{1}{3}Bh \quad \text{for } B$$

$$K = \frac{E}{D + Rn} \quad \text{for } n$$

Solve the problem. Round to the nearest hundredth, if necessary.

13 is 43% of what number?

Solve the problem.

If Gloria received a 4 percent pay cut and is now making \$26,640 a year, what was her salary before the pay cut?

One half of a number is 3 less than one-sixth of twice that same number. What is the number?

Suppose that the perimeter of a rectangle is 100 inches. If twice the width is 4 inches less than the length, find the dimensions of the rectangle.

Solve the inequality and graph the solutions.

$$18x - 36 > 6(2x - 7)$$

Solve the problem.

In order for a chemical reaction to take place, the Fahrenheit temperature of the reagents must be less than 167° F. Find the Celsius temperatures at which the reaction may occur.

$$(F = \frac{9}{5}C + 32) \text{ Write the answer using inequality notation.}$$

Solve the following equation: $3(x + 2) = x + 14$

Simplify: a) $-2(-8) - 3|2(-8) + 5|$

b) $[6(x + 2) - 5] - [2(3x - 1) + 3]$

Solve and graph on the number line: $3x + 6 \geq 15$.



Solve the following equation for x: $a + bx = cx$.

Jon tags fish on the Herbert river. One day he caught 48 fish and 36 of them were tagged. What percentage of fish were tagged?

Solve for b: $c = \frac{1}{a - b}$

The width of a rectangle is 48 yards. Find all possible lengths so that the perimeter of the rectangle will be at least 210 yards.

Factor: $6x + 36y - 42$

Evaluate $\frac{4|y - 2x|}{2}$ when $x = 10$ and y is 4 less than x .

Solve the following inequality: $3(r - 6) + 2 < 4(r + 2) - 21$.

The perimeter of a triangle is 48. If the sides are consecutive even integers, then find the length of each side.