



Pre-Algebra

Extra Help Today

Agenda:

- Percent Sentences
- Quiz on Percent Problems (ch. 7-1 to 7-5) on Thursday

To Do Now:

- Complete Warm Up
- Homework should be on your desk. (Page 356 Mid-Chapter Quiz)

Warm Up:

- Would you rather pay 22% off a \$22 shirt or pay two-fifths of a \$42.88 shirt? Show proof of your answer.

Homework:

- Complete handout on Markup/Discount #1-8.
- Do not start this homework assignment until you understand ALL of the questions from the Mid-Chapter Quiz HW...

Nov 4-10:28 AM

$$\begin{array}{r}
 \text{COST} \\
 + \text{MARKUP} \\
 \hline
 \text{SELLING PRICE} \\
 \\
 \text{SELLING PRICE} \\
 + \text{TAX} \\
 \hline
 \text{FINAL PRICE}
 \end{array}$$

Mar 9-10:39 AM

- Would you rather pay 22% off a \$22 shirt or pay two-fifths of a \$42.88 shirt? Show proof of your answer.

22% of 22 is X

$$0.22(22) = X$$

$$\$4.84 = X$$

$$\begin{array}{r} 22.00 \\ - 4.84 \\ \hline \$17.16 \end{array}$$

$$\frac{2}{5} = 0.40$$

40% of 42.88 is X

$$0.40(42.88) = X$$

$$\underline{\$17.15 = X}$$

Mar 8-2:26 PM

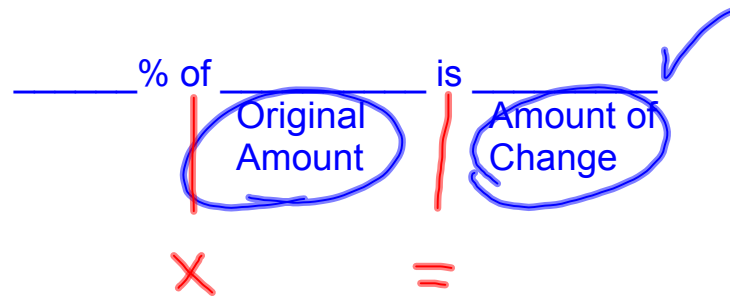
$$\begin{array}{cc} \text{PERCENT} & \text{FX} \\ 33\frac{1}{3}\% & \neq 33\frac{1}{3} \end{array}$$

$$\downarrow \longrightarrow \frac{1}{3} = 0.\overline{3}$$

— %

Mar 9-7:53 AM

What is the percent sentence?



Reminder:

Discount: subtract from original amount

Markup: add to original amount

Sales tax: added to discount or markup...last thing to do.

Mar 8-2:13 PM

- Would you rather pay 22% off a \$22 shirt or pay two-fifths of a \$42.88 shirt? Show proof of your answer.

Mar 8-2:26 PM

What is the percent sentence?

Reminder:

Discount: subtract from original amount

Markup: add to original amount

Sales tax: added to discount or markup...last thing to do.

Mar 8-2:13 PM



Intro to-Algebra

Extra Help Today

Agenda:

- Solving Systems of Inequalities

To Do Now:

- Warm Up
- Have your homework on your desk. (#1-4 problems on handout)

Warm Up:

- Solve for x:

$$x + \frac{x}{6} = 2x - \frac{x+8}{2}$$

Homework:

- Graph the two pages of the handout as inequalities, showing the solutions to the system.

Nov 4-10:28 AM

$$\left(x + \frac{x}{6} = 2x - \frac{x+8}{2}\right) \cdot 6$$

$$6x + x = 12x - 3x - 24$$

$$7x = 9x - 24$$

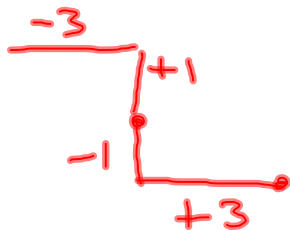
$$\begin{array}{r} -9x \\ \hline -2x = -24 \end{array}$$

$$\begin{array}{r} -2x = -24 \\ \hline x = 12 \end{array}$$

$$\left(\frac{x+8}{2}\right) \cdot 6$$

Mar 9-8:42 AM

When working with inequalities, whenever you....



Whenever you multiply or divide both sides of an inequality by a negative, you **MUST** change the direction of the inequality sign!

$$-\frac{1}{3} = \frac{-1}{3} = \frac{1}{-3}$$

Mar 7-1:34 PM



Advanced Algebra

Extra Help Today

Agenda:

- Completing the Square

$$\sqrt{\frac{23}{3}} \quad \sqrt{3} = \frac{\sqrt{69}}{3}$$

To Do Now:

- Complete Warm Up
- Rationalizing the denominator (Page 535 #2-38 Evens)

Warm Up:

- Write two equations that are perpendicular to each other and share a common point of (-1, 2)

Homework:

- None-Study the Completing Square method

Nov 4-10:28 AM

$$\sqrt{3x^2 + 1} = 7$$

$$3x^2 + 1 = 7^2$$

$$3x^2 + 1 = 49$$

$$3x^2 = 48$$

$$x^2 = 16$$

$$x = \pm 4$$

Mar 7-1:46 PM

Solve for x: $x^2 - 6x + 8 = 5$

$$x^2 - 6x + 3 = 0$$

COMPLETING THE SQUARE

BINOMIAL SQUARE

CONSTANT

$$(x + \quad)^2 = \square$$

$$x + _ = _$$

Mar 8-11:03 AM

Completing the square

"A" MUST BE 1.

$$x^2 - 6x + 9 = (x-3)^2 \quad x^2 - 6x + 3 = 0$$

- ① REWRITE WITH "X" TERMS ON ONE SIDE AND THE CONSTANT ON THE OTHER.

$$x^2 - 6x = -3$$

- ② ADD A CONSTANT TO BOTH SIDES TO CREATE A BINOMIAL SQUARE
- (ADD $(\frac{B}{2})^2$)

$$x^2 - 6x + \underline{\quad} = -3 + \underline{\quad}$$

Mar 8-2:22 PM

- ③ FACTOR THE ONE SIDE
AS A BINOMIAL SQUARE.

$$x^2 - 6x + 9 = -3 + 9$$

$$(x - 3)^2 = 6$$

SIMPLIFY THE OTHER SIDE

- ④ SQUARE ROOT BOTH SIDES.
(DON'T FORGET \pm TO CONSTANT)

$$x - 3 = \pm\sqrt{6}$$

- ⑤ SOLVE FOR X. $3 \pm \sqrt{6}$

Mar 9-12:56 PM

$$x^2 - 8x + 10 = 0$$

$$x^2 - 8x = -10$$

$$x^2 - 8x + 16 = -10 + 16$$

$$(x - 4)^2 = 6$$

$$\sqrt{(x - 4)^2} = \pm\sqrt{6}$$

$$x - 4 = \pm\sqrt{6}$$

$$x = 4 \pm \sqrt{6}$$

Mar 9-1:00 PM