Welcome to Class!!

1. Please complete your one-step equation puzzle that you had for homework. Make sure you turn in your work for solving the equations on the puzzle. The puzzle should be glued back together in a 3 by 3 square. Remember that there are outside edge squares that will not have an answer match up with. Turn this in to the substitute.
2. Go to my website and copy the notes for two-step equations.
3. Get the crossword puzzle from the substitute and work on in class. Turn in your work and the crossword puzzle before you leave class today.
4. Begin your homework which is the Maze posted on my weebly.
5. Be ready for a notebook check on Wednesday.

One-Step Equation Review

$2P = 14$

$\frac{2P}{2} = \frac{14}{2}$ (div. prop. =)

$P = 7$

$\frac{y}{2} = 14$

$2 \cdot \frac{y}{2} = 7 \cdot 2$ (mult. prop. =)

$y = 14$

$3Q = 6$

$\frac{4}{3} \cdot \frac{3}{4}Q = \frac{4}{3} \cdot \frac{6}{1}$ (mult. prop =)

$Q = 8$

Question

Multipying by a fractions

$\frac{2}{3}P = 4$

$\frac{3}{2} \cdot \frac{2}{3}P = \frac{3}{2} \cdot \frac{4}{1}$ (mult. prop.)

$P = 6$

Two-Step Equations

Things to remember for 2-Step Equations

- (First) Simplify using the inverse of addition or subtraction.

- (Second) Simplify further by using the inverse of multiplication or division.

** Use the multiplicative inverse if variable is being multipied by a fraction. **

multiply by reciprocal

Instruction

$2x - 12 = 5$

$2x - 12 + 12 = 5 + 12$ Step 1 (add prop=)

$2x = 17$

$\frac{2x}{2} = \frac{17}{2}$ Step 2 (div. prop. =)

$x = 8.5$ Solution

Question

1. $4Q + 4 = 20$

$4Q + 4 - 4 = 20 - 4$ (Subt. prop. =)

$4Q = 16$

$\frac{4Q}{4} = \frac{16}{4}$ (div. prop. =)

$Q = 4$

2. $6R - 5 = 37$

$6R - 5 + 5 = 37 + 5$ (add. prop. =)

$6R = 42$

$\frac{6R}{6} = \frac{42}{6}$ (div. prop. =)

$R = 7$

Question

3. $\frac{Q}{3} + 4 = 8$

$\frac{Q}{3} + 4 - 4 = 8 - 4$ (subt. prop. =)

$\frac{Q}{3} = 4$

$3 \cdot \frac{Q}{3} = 3 \cdot 4$ (mult. prop. =)

$Q = 12$

3. $\frac{S}{3} + 8 = 11$

$\frac{S}{3} + 8 - 8 = 11 - 8$ (subt. prop. =)

$\frac{S}{3} = 3$

$3 \cdot \frac{S}{3} = 3 \cdot 3$ (mult. prop. =)

$S = 9$

5) $\frac{9+p}{8} = 2$

$8 \cdot \frac{9+p}{8} = 8 \cdot 2$ (mult. prop.=)

$9+p = 16$

$9-9+p = 16-9$ (subt. prop.=)

$p = 7$

* When every term is being divided by the denominator, multiply first to get rid of the denominator.

6) $\frac{7+x}{2} = 2$

$2 \cdot \frac{7+x}{2} = 2 \cdot 2$ (mult prop.=)

$7+x = 4$

$7-7+x = 4-7$ (subt. prop.=)

$x = -3$

You bought a magazine for $5 and four erasers. You spent a total of $25. How much did each eraser cost? x ~ # of erasers

$4x + 5 = 25$

$4x + 5 - 5 = 25 - 5$ (subt. prop =)

$4x = 20$

$\frac{4x}{4} = \frac{20}{4}$ (div. prop. =)

$x = 5$

$5 for each eraser

Jill sold half of her comic books and then bought sixteen more. She now has 36. With how many did she begin?

x = # of comic books

$\frac{1}{2}x + 16 = 36$

$\frac{1}{2}x + 16 - 16 = 36 - 16$ (subt. prop. $=$)

$\frac{1}{2}x = 20$

$2 \cdot \frac{1}{2}x = 2 \cdot 20$ (mult. prop. $=$)

$x = 40$

40 comic books

Aliyah had $24 to spend on seven pencils. After buying them she had $10. How much did each pencil cost?

c - cost of one pencil

$24 - 7c = 10$

$24 - 24 - 7c = 10 - 24$ (subt. prop. =)

$-7c = -14$

$\frac{-7c}{-7} = \frac{-14}{-7}$ (div. prop. =)

$c = 2$

A pencil costs $2.

Once you have copied these notes, get the crossword puzzle from the substitute.
Show your work with steps and properties for each problem.
Staple your work to the crossword puzzle and turn it in.