

Algebra

November 7-11, 2011

- Monday, November 7, 2011
- SW solve equations involving more than one operation
- SW complete review quiz upon entering the classroom
- CW review notes students took on solving equations by undoing addition/subtraction and then multiplication/division
- SW complete class work, working with a partner
- SW begin homework if time permits

- Lesson 4-5 Solving Multi-Step Equations
- Term you should have in your notes:
 - > Consecutive integer
- Solve each equation.
 - > Steps: 1) Undo addition or subtraction
 - 2) Undo multiplication or division

1) $11x + 9v = 119$

$$\begin{array}{r} 11x + 9v = 119 \\ -11x = -119 \\ \hline 9v = 108 \\ \frac{9v}{9} = \frac{108}{9} \\ v = 12 \end{array}$$

2) $\frac{a}{8} - 5.2 = 3.1$

$$\begin{array}{r} \frac{a}{8} - 5.2 = 3.1 \\ + 5.2 \\ \hline \frac{a}{8} = 8.2 \quad (8) \\ a = 65.6 \end{array}$$

3) $\frac{b+4}{7} = 6(7)$

$$\begin{array}{r} \frac{b+4}{7} = 6(7) \\ \times \rightarrow \frac{b+4}{7} = 42 \\ \frac{b+4}{7} = 42 \\ -4 \\ \hline b = 38 \end{array}$$

4) $-4 - 0.7m = 2.3$

$$\begin{array}{r} -4 - 0.7m = 2.3 \\ +4 \\ \hline -0.7m = 6.3 \\ \frac{-0.7m}{-0.7} = \frac{6.3}{-0.7} \\ m = -9 \end{array}$$

* 1) When you have a variable \pm another number, you multiply each side the denominator. The follow usual steps

$0.7 \overline{)6.3}$ $7 \overline{)63}$

- Consecutive Integers: Numbers that are in counting order

Consec. even/odd numbers: 1st n 2nd n+1 3rd n+2 4th n+3

- 1) Find 3 consecutive integers whose sum is 27.

$$\begin{array}{l} 1^{st} = n \\ 2^{nd} = n+1 \\ 3^{rd} = n+2 \end{array} \quad \left. \begin{array}{l} n+n+1+n+2 = 27 \\ 3n+3 = 27 \\ -3 \\ \hline 3n = 24 \\ \frac{3n}{3} = \frac{24}{3} \\ n = 8 \end{array} \right\} \text{3rd Story Problems}$$

- 1) Five more than three-fourths of a number c is 26. Find the number

$$\begin{array}{r} \frac{3}{4}c + 5 = 26 \\ -5 \\ \hline \frac{3}{4}c = 21 \\ \frac{4}{3} \cdot \frac{3}{4}c = \frac{4}{3} \cdot 21 \\ c = 28 \end{array}$$

- 2) Start with the number x. If you multiply the number by 2, divide by 5, and add 20, you get 10. What is the value of x?

$$\begin{array}{r} \frac{2x}{5} + 20 = 10 \\ -20 \\ \hline \frac{2x}{5} = -10 \\ \frac{2x}{5} = -10 \\ \frac{2x}{2} = -10 \cdot \frac{5}{2} \\ x = -25 \end{array}$$

- Class work: Page 168-169; 4-12 even, 13
- Homework: Page 169-170; 14-41 every third
- Read and take notes on pages 171-172
 - > Make sure to show examples of how to solve equations with variables on both sides.

- Tuesday, November 8, 2011
- SW solve equations with variables on both sides
- SW complete review quiz upon entering the classroom
- CW review notes students and work through solving algebraic equations that have variables on both sides of the equation
- SW complete class work, working with a partner
- SW begin homework if time permits

When you have a $\frac{\text{variable} \pm \text{number}}{\text{number}}$

- Multiply by the denominator

- Lesson 4-6 Variables on both sides
- No solution: When you move the variables & you are left w/ 2 numbers that don't equal
- Identity: Both sides of the equation are the same
- Steps to solve
 - 1) Add/Subt to get the variables on one side
 - 2) Undo add/subt
 - 3) Undo mult/division

• Solve each equation:

$$\begin{array}{l} 1) \frac{d}{-9} + 9 = \frac{4d}{-12} \quad a = 3 \\ \frac{d}{-9} = \frac{4d}{-12} \\ \frac{d}{3} = \frac{4d}{3} \end{array}$$

2) $\frac{2}{3}n = \frac{1}{3}n - 2$ $n = \frac{6}{1} = -6$

$$\frac{2}{3}n - \frac{1}{3}n = -2$$

$$\frac{1}{3}n = -2 \left(\frac{3}{1}\right)$$

3) $2t + 4 - t = 4 + t$ Identity $1t + 4 = 4 + t$

4) $\frac{5k}{3} - 2.4 = \frac{3k}{5} + 1$ $-3.4 = \frac{-2k}{-2}$ $k = 1.7$

$$\frac{5k}{3} - 2.4 = \frac{3k}{5} + 1$$

$$\frac{5k}{3} - \frac{3k}{5} = 3.4$$

$$\frac{25k - 9k}{15} = 3.4$$

$$\frac{16k}{15} = 3.4$$

$$16k = 51$$

$$k = \frac{51}{16} = 3.1875$$

5) $\frac{16h}{-16} + 7 = 16 + \frac{16h}{-16}$ No Solution

$$\frac{16h}{-16} + 7 = 16 + \frac{16h}{-16}$$

$$-h + 7 = 16 - h$$

$$7 = 16$$

- Class Work: Page 173; 4-12 even, 13
- Homework: Page 173-174; 15-36 every third

- Wednesday, November 9, 2011
- SW review Lesson 4-2 through 4-6 for test tomorrow.
- SW complete review quiz upon entering the classroom
- CW review key concepts from the previous 5 lessons for tomorrow's test
- SW begin working on review packet with a partner and finish up the packet as homework.
- Homework Passes:
 - > Receive 2 homework passes for this quarter by bringing in one package of copy paper by December 1

- Thursday, November 10, 2011
- SW have the entire class period to complete Test 5
- Homework: Page 181-182; 19, 20-48 even
- Read and take notes on pages 176-177
 - > Take notes on how to solve equations using grouping symbols and the distributive property
- Homework Passes – receive 2 for a package of printer paper.
 - > 2 passes per student