

## Math 8

Our Goal: To learn to solve multi-step equations

Warm Up: You will need your homework, notebook, and computer  
Everything else, bags etc. on the shelves please

Today's Homework

M&Y 1.2 Practice, p.13-14: 1-15

Previous Homework

M&Y 1.1 Practice, p.7-8: 1-25

Simplify the expression.

$$\underline{\underline{9 - m + 4m + 7}}$$

$$1) \underline{2n} + 5 + \underline{3n}$$

$$5n + 5$$

$$2) \underline{x} - 7 - \underline{4x}$$

$$-3x - 7$$

$$3) \underline{4f} + f + 6f$$

$$4) (9 - m) + 4m + 7$$

$$= 8 + 11m \quad \underline{\underline{3m + 16}}$$

$$5) 17 + 2t - 9 + 2t$$

$$6) (y + 7) + (2y - 5)$$

$$= y + 7 + 2y - 5$$

$$3y + 2$$

$$\underline{\underline{\quad}}$$



### **Solving Multi-Step Equations**

To solve multi-step equations, use inverse operations to isolate the variable.

The height (in feet) of a tree after  $x$  years is  $1.5x + 15$ .  
After how many years is the tree 24 feet tall?

Solve  $8x - 6x - 25 = -35$ .

$$\begin{array}{rcl} \checkmark 2x - 25 & = & -35 \\ 25 & + & 25 \\ \hline 2x & = & -10 \\ \hline 2 & & 2 \\ \hline x & = & -5 \end{array}$$

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

$$\begin{array}{rcl}
 2 - 10x + 4 & = & -8 \\
 6 - 10x & = & -8 \\
 -6 & & -6 \\
 -10x & = & -14 \\
 -10 & & : -10 \\
 x & = & \frac{14}{10} = \frac{7}{5}
 \end{array}
 \quad x = \frac{7}{5}$$

Use the table to find the number of miles  $x$  you need to run on Friday so that the mean number of miles run per day is 1.5.

Day	Miles
Monday	2
Tuesday	0
Wednesday	1.5
Thursday	0
Friday	$x$

average

$$\frac{2+0+1.5+0+x}{5} = 1.5$$