

## TI 83/84: Use the Calculator to Check Your Equation Solution:

Suppose you tried to solve the equation  $2x = x + 3$  and think the answer is  $x = 3$ . An easy way to check to see if you have the right answer is to use your calculator's STORE key. Here's how:

Store your answer in the variable X by pressing  $\boxed{3}$ , then  $\boxed{\text{STO}\blacktriangleright}$ , then  $\boxed{\text{X,T,}\theta,\text{n}}$ , then  $\boxed{\text{ENTER}}$ . Your TI will tell you it has stored the 3 by returning the value 3 in the next line.

Now, type the left hand side (LHS) of your ORIGINAL equation and press  $\boxed{\text{ENTER}}$ . Then, type the right hand side (RHS) of your ORIGINAL equation and press  $\boxed{\text{ENTER}}$ . Are the two results equal? Yes! That means that  $x = 3$  was the correct solution.

3→X	3
2X	6
X+3	6

Because both sides of the equation came out to the same number, we know we have the correct answer.

### Summary:

- 1) Store your answer as  $x$ .
- 2) Type in the left-hand side (LHS) of the ORIGINAL equation, get an answer.
- 3) Type in the right-hand side (RHS) of the ORIGINAL equation, get an answer.
- 4) Check that the two sides came out equal!

Solve each equation, and check every answer on your calculator.

$$2(x - 1) + 6x = 242 - 2x$$

LHS =

RHS =

Do they match?

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

Multiply every term by the LCD to cancel the fractions!

LHS =

RHS =

Do they match?

(You'll need parentheses when you check this on your calculator -- where?)

$$\frac{2y}{3} - \frac{3}{4} = \frac{1}{20}$$

Multiply every term by the LCD to cancel the fractions!

LHS =

RHS =

Do they match?

$$x^2 - 6 = 5x$$

For your first answer:  $x = \underline{\hspace{2cm}}$

LHS =

RHS =

Do they match?

For your second answer:  $x = \underline{\hspace{2cm}}$

LHS =

RHS =

Do they match?

$$3(x - 2)^2 + 7 = 28$$

(solve by  $\pm\sqrt{\hspace{1cm}}$ , don't multiply it out.  
Answer in simplified radical form.)

For your first answer:  $x = \underline{\hspace{2cm}}$   $\approx$   $\underline{\hspace{2cm}}$   
(simplified radical answer) (decimal answer, don't round)

LHS =

RHS =

Do they match?

For your second answer:  $x = \underline{\hspace{2cm}}$   $\approx$   $\underline{\hspace{2cm}}$   
(simplified radical answer) (decimal answer, don't round)

LHS =

RHS =

Do they match?