Lesson #13

Storing a Value

An algebraic expression is an expression containing numbers and variables. The TI-84 can be very useful for evaluating algebraic expressions. The graphing calculator has a storing function that allows values to be stored into variables. Once all values are stored in the respective variables, an algebraic expression can be entered and evaluated.

To store 8 into the variable x, press [8] [STO)] [X,T,θ,n], then press [ENTER]. If the value is stored correctly it will appear on the next line to the right side of the screen. To enter multiple values place a ':' in between each set of stored values. For example, to store 5 into variable A, 12 into variable B, and 13 into variable C, press [ALPHA] [.] to separate each entry. See the diagram below.
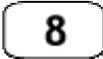
8→X		5→A:12→B:13→C		10X	
	8		13		80
				2A+B−C	
					9
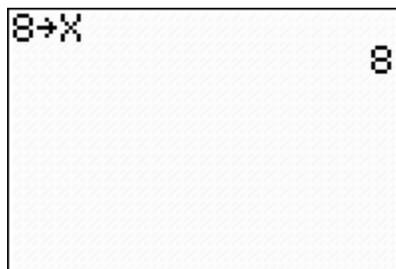
Storing a value into a single variable.	**Storing a value into multiple variables.**	**Evaluating expressions using the variables and the values stored into them.**
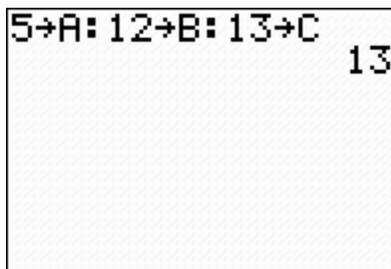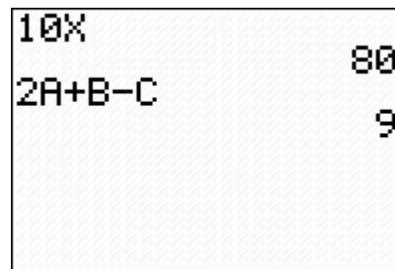
Set 1 – Use the store function to evaluate the following expressions for $x = 3$, $y = 2$, and $z = -7$. Do not round.

LP#1 $3(x+2z)$	$x + \dfrac{14}{z}$	$\dfrac{4x + 3y - 6z}{4y + 2}$	$\dfrac{4x + y^2}{3x + 2y}$
LP#2 $2z^2 + 5y$	$\dfrac{2x}{y} + \dfrac{8}{x}$	$\dfrac{x + 5y + 2z}{7x + 1}$	$\dfrac{z^2 + 5}{9x}$

R#1 $2(3x + z)$	$\dfrac{5x}{2y} + \dfrac{2}{3x}$	$\dfrac{3x + y}{5y}$	$y^3 + x^3 - z^3$
R#2 $3x^2 + 2y^3$	$\dfrac{x}{y} + \dfrac{z}{y}$	$3x + 5y + 7z$	$x(x + 4y) + z$
R#3 $z^2 + z^3$	$z(x + y + z)$	$\dfrac{3z}{10x + 7y}$	$\dfrac{x + y}{z - 3}$

Please note:
- Anytime a new value is stored into a variable the old entry is removed.
- The calculator's default is set to store 0 in all variables.