Name _____ Date _____

LESSON 1.1

Graphing Calculator Activity: Evaluating Expressions

For use before the lesson "Evaluating Expressions"

QUESTION **How can you use a graphing calculator to evaluate an expression using the *store* feature?**

You can use a graphing calculator to evaluate an expression using the *store* feature. The *store* feature is helpful if you need to use the same value for a variable in several expressions. The *store* feature is also useful to check your work.

EXAMPLE **Evaluate expressions using a graphing calculator**

Use a graphing calculator to evaluate the expression for $x = 4$ and $y = 5$.

a. $9 + x$ **b.** $15x$ **c.** $36 - x$

d. $\frac{64}{x}$ **e.** x^3 **f.** $2xy$

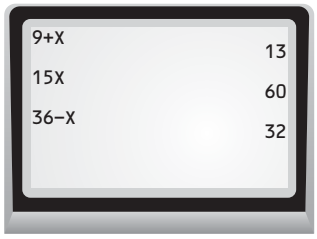
Solution

Use the *store* feature of the calculator to store the values of the variables.

Use the following keystrokes.

4 STO→ X,T,θ,*n* ENTER

5 STO→ ALPHA [Y] ENTER



Then enter the expression in the calculator.

Use the following keystrokes.

a. 9 + X,T,θ,*n* ENTER

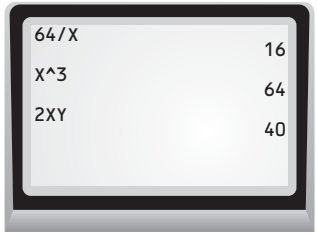
b. 15 X,T,θ,*n* ENTER

c. 36 − X,T,θ,*n* ENTER

d. 64 ÷ X,T,θ,*n* ENTER

e. X,T,θ,*n* ^ 3 ENTER

f. 2 X,T,θ,*n* ALPHA [Y] ENTER



PRACTICE **Use a calculator to evaluate the expression when $x = 3$.**

1. $x - 1$ **2.** $12x$ **3.** $\frac{48}{x}$

4. $22 + x$ **5.** x^4 **6.** $5x^2 + 3x$

Use a calculator to evaluate the expression when $x = 10$ and $y = 2$.

7. xy **8.** $x - y$ **9.** $4 + x + y$

10. $\frac{x}{y}$ **11.** $x^2 - y^5$ **12.** $9y + x - 15$

Name _____ Date _____

LESSON 1.1

Graphing Calculator Activity: Evaluating Expressions *continued*

For use before the lesson "Evaluating Expressions"

TI-83 Plus

4 STO→ X,T,θ,*n* ENTER

5 STO→ ALPHA [Y] ENTER

a. 9 + X,T,θ,*n* ENTER

b. 15 X,T,θ,*n* ENTER

c. 36 − X,T,θ,*n* ENTER

d. 64 ÷ X,T,θ,*n* ENTER

e. X,T,θ,*n* ^ 3 ENTER

f. 2 X,T,θ,*n* ALPHA [Y] ENTER

Casio CFX-9850GC Plus

From the main menu, choose RUN.

4 → X,θ,T EXE

5 → ALPHA [Y] EXE

a. 9 + X,θ,T EXE

b. 15 X,θ,T EXE

c. 36 − X,θ,T EXE

d. 64 ÷ X,θ,T EXE

e. X,θ,T ^ 3 EXE

f. 2 X,θ,T ALPHA [Y] EXE