Substituting Values for Variables

Substituting is very useful because we can “put” different values in for a variable and calculate what the equation is equal to when that value is substituted.

Example: x + 2; x =9

This is the expression This is the value of the variable you must SUBSTITUTE into the expression

x + 2; x =9

When you substitute 9 in the place of the variable “x”, you get the following:

 x + 2

 9 + 2

 11

We have EVALUATED the expression. Working DOWNWARD like this is very important because soon we will have expressions on BOTH sides of the equal sign (which are called EQUATIONS).

Try this one: m + 3; m = 13

**SKATEBOARDING YOUR WAY TO MAKING EXPRESSIONS**

The cost to rent skateboards is $10, plus $2 per hour.

1. Write an EXPRESSION that shows the cost to rent skateboards for any number of hours.

 X +

1. Write an EQUATION that shows the cost to rent skateboards for any number of

hours.

 x + =

1. Use the expression or the equation (your choice) to determine the cost to rent

skateboards for 8 hours.

Substitute

Evaluate

1. Use the EQUATION to determine the MAXIMUM number of hours of skateboarding I can afford if I have $32.00 to spend.

Substitute

Evaluate

9. A student company charges a $5 flat fee plus $3 per window to wash windows.

 a) Write an equation that represents the cost of washing any number of windows.

 b) How much more would someone pay to have 35 windows washed than 24 windows?

 c) Might someone have to pay exactly $87 to have their windows washed? Explain.