



# TI-73 EXPLORER™

## 7<sup>TH</sup> GRADE ACTIVITY 6:

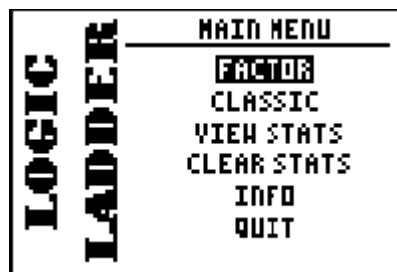
### LOGIC LADDER FACTORS

#### ACTIVITY OVERVIEW:

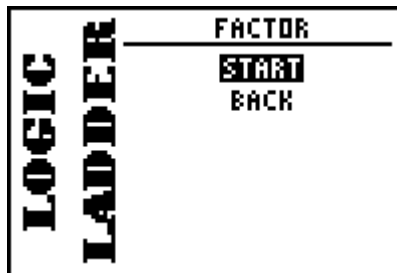
In this activity we will

- Find the prime factorization of numbers in a game
- Uses algebraic expressions

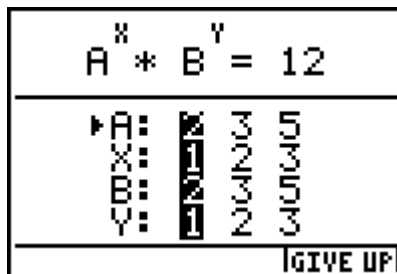
Note: You will need the Logic Ladder App for this activity.



On your TI-73 Explorer™, press the **[APPS]** key and select Logic Ladder by using the arrow keys to move to the application and then press **[ENTER]** to reach the main screen. The factor game will be selected. Press **[ENTER]** again to go to the game.



You will see a screen like the one on the right. You will solve the given problem by determining the prime factors of the “target number. In this example, the target number is 12. In the picture, the potential values for base “A” are 2, 3 and 5

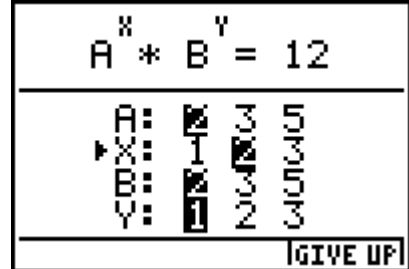


You can use any method to solve the problems. One method is to use a factor tree to break down the factors of a number into their prime components.

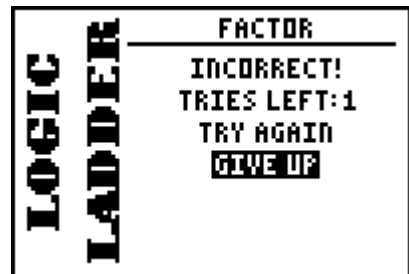
Remember that a prime number is a whole number that has only 2 distinct whole number factors, one and the number itself.

Once you have determined the prime factors, you can use the arrow keys to select the values that will solve the equation for the given number.

On the screen, the arrow on the left tells you the variable you are selecting. So far, we have selected  $2^2$ . You will continue selecting values for each variable and then press **ENTER** to check your answer.



If your answer is incorrect, you will get a screen like the one at the right. You will get an additional chance to solve the equation



Once you solve a problem, you can continue with the game to solve another problem. The game will keep track of your success in wins and losses. You can also clear the wins and losses, if you choose to do so. GOOD LUCK!

