

# Activity 1

## Logo Graphics Commands

A computer language is a collection of words that permit communication between a computer and a user. The Logo language has a relatively small number of words that have special meaning. You will learn these commands and learn how to apply them to solve problems.

The flashing cursor is Logo's way of reminding you that it is ready for your commands. Let's find out what commands are available in the language.

The Logo turtle uses a turtle to trace out a trail wherever it goes. To test different commands type in the command in the bottom textbox windows and then press the ENTER key.

Type in <FORWARD>, don't forget to press <ENTER>. An error message will be displayed describing the problem. In this case a message suggests that "forward needs more inputs". What is an "input"? In this case Logo needs to know the number of turtle steps to move forward. This time type <FORWARD 50>. In this example "50" is the input value. Be sure and put in a space between the command and the inputted value. Many Logo commands may be abbreviated. For instance, the above command could have been entered as <FD 50>. Try it!!!

Let's learn about three more commands. Sometimes you will want to completely clear your screen and start over. To clear your screen and to have your turtle return to the center of the screen type <CS>. CS stands clear screen. Can you predict the results of typing in the following commands? Try it now!

```
<FD 50 RT 90 PU FD 20 LT 90 PD BK 50>
```

Note that it is possible to enter more than one command on the same line. Sometimes this is useful to know, at other times, it can be difficult to trace an error. The PU command is used to pick the Pen Up, so that the turtle does not leave a trail. The PD command places the Pen Down once again for drawing.

It is not unusual to want to erase lines you draw by accident. It is possible to do this by using PE (Pen Erase). To erase a line that already exists you will type PE and draw over the line you don't want. You must type PD (Pen Down) to continue to draw. Unless you erase a line immediately after drawing it, it can be very difficult to erase completely. Try the following:

```
<PD>  
<FD 100>  
<PE>  
<BK 50>  
<FD 10>  
<PD>  
<FD 20>
```

Generally, it is better to start over (CS) rather than to try to fix several small errors on a drawing.

### **Editing Technique:**

The following example will demonstrate a technique that will save you some time typing. Type <CT> to clear the commands in the command center. Normally you would type four forward and right turn commands to make a square. There is a way that involves less keyboarding effort.

Enter the following into the textbox below the Commander window:

```
<FD 50 RT 90 > <ENTER>
```

This will move the turtle up 50 turtle steps and make the turtle face to the right. In the commander window click on the FD 50 RT 90. It will appear in the textbox window below. You can activate the command by pressing EXECUTE or hitting <ENTER> in the textbox window. Do this two more time and if you were careful it made a square.

### **Videos to View**

[Entering Logo Commands and Using the Menus](#)  
[Logo Controls and ReEnter a Command](#)  
[Moving the Turtle](#)  
[Drawing with the Pen Up and the Pen Down](#)

**Logo  
Assignment 1**

**Name:**\_\_\_\_\_

After you have completed this assignment please print the current page with your answers. **DO NOT PRINT THE ENTIRE ACTIVITY!**

- 1) What is the computer's response when you type <BeGOOD!!!>?
  
- 2) Name three Logo commands that require "input" values (i.e. FD 100).
  
- 3) Write down the commands to create an equilateral triangle.
  
- 4) Use the "immediate mode" to write the initials of your first and last names on the graphics screen. You may make block style letters or ones with a slant. It may be necessary to erase a line. Remember this can be done with the pen erase (PE) command. Don't forget to use the pen down (PD) command to continue drawing. Please copy and paste your final product here using ALT Printscreen and Paste.