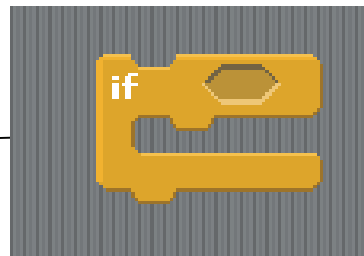




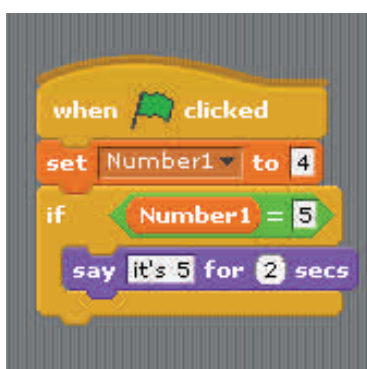
## Computer Programming - If Commands in SCRATCH

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Computer programmers often have a need to do things in a program, if a condition is met. One of the many ways of doing this is to use an If Statement. You will meet the If Statement when we program in Python but, for the moment, we will use the If Command block which is similar.



Try this simple program - it will show you how to use the command block:



As you can see, when you run the program, the variable called Number1 will be set to a value of 4. The next line, the *If command block*, is set so that it checks that the variable Number1 is set to 5. If it is, the sprite will say *It's 5* for two seconds. If the variable is not set to 5 then nothing will happen. Run the code to see that this is the case, and then change the Set Number1 to 4 block to Set Number1 to 5 and re-run the code.

### Exercises

1. Create a program which uses the IF command block to test to see if a variable is set to 4 and, if it is, to say It's 4 on the stage. Then add a second if statement to the program which tests if the same variable is set to 3. If it is, the program should say It's 3, on the stage. When you have the program working, save it as If Block 1.
2. Create a program which ask the user to input a number between 1 and 4. Use If command blocks so that: If 1 is entered, the word Red is displayed, if 2 is entered, the word Orange is displayed, if 3 is entered the word Yellow is displayed, if 4 is entered, the word Green is displayed. If any other number is entered, nothing happens. Save the program as If Block 2.
3. Create a program which generates a random number between 1 and 4. Add coding so that the sprite says, the random number is \*\*. Use If Command blocks so that: If 1 is generated, the word Red is displayed, if 2 is generated, the word Orange is displayed, if 3 is generated the word Yellow is displayed, if 4 is generated, the word Green is displayed. Test the program until you see that all four numbers have been generated and all four colours have been displayed. Save the program as If Block 3.