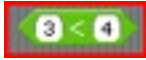


## Scratch Conditionals

A **condition** is something that is either true or false.

In Scratch **Conditions** have angled edges, like this: 

There are some in the *Sensing* area and some in *Numbers*. Here are some examples:



is a true condition.



is a true condition for all values of x that are greater than 0.



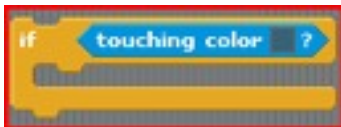
is a condition that may evaluate to true or false, depending on x.

Conditionals can also be combined using , , and .

Are the following conditionals?

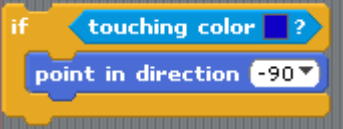

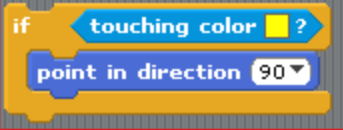

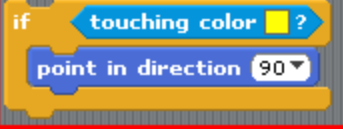



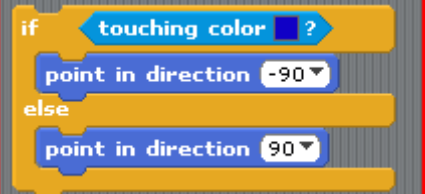

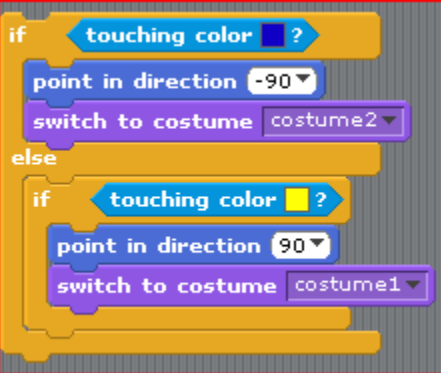


	Conditional?
4	
$X > 10$	
$X < 10$ or $X > -10$	
Move 10 steps	
Is space pressed?	
Is touching blue?	
Not is touching blue?	
Repeat 10	

**Conditional control:** A **Conditional control block** is a control block where you stick a **condition** into the block, and the controls inside the conditional control will only run if the condition was true. Start by finding an *if* control under the *Controls* button. Then finding the *touching color* condition under the *Sensing* button. Put the *touching color* condition into the *if* control, so it looks as follows:



To change the color in the conditional, click on the color swatch, then click on a color in the stage to select it.

What happens in these cases?

If the script says:	And the stage looks like:	
		The sprite moves to the left.
		
		
		
	 (this is a bit tricky!)	
	 And... 	

Once you have answered the questions above, write a program that makes a ball bounce back and forth between bars of two colors on either side of the screen.

For an added challenge, make your ball bounce around the screen at angles.