




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  or , and negated using .

Are the following conditionals (yes or no)?

	Conditional?
	
	
	
	
	
	
	
	



Conditionals are in every piece of software you use. Try to guess some of the conditionals your favorite programs have:

Program	Conditional

Name: _____

Conditional control: A **conditional control block** is a control block that uses a condition to determine when to run its body. The blocks inside the conditional control will only run if the condition is true. Conditional control blocks have a hole with angled edges:



The script says	The stage looks like	What happens?
<pre> forever if touching color blue? point in direction -90 move 10 steps </pre>		
<pre> forever if touching color yellow? point in direction 90 move 10 steps </pre>		
<pre> if key a pressed? say 'A' is for alpha! for 2 secs else if key b pressed? say 'B' is for beta! for 2 secs else say What? for 2 secs </pre>	<p>No key is pressed</p>	

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. Create a new sprite for each bar. Can you create a pong game? When the ball hits a paddle, make it turn by 180 degrees.