

# CS108L Computer Science for All

## Module 2 NetLogo Code Cheat Sheet

Command / Variable	Description
<b>set color</b> # <b>set color</b> <i>color_name</i>	<p>Changes an agent's color to # or the given <i>color_name</i> (see NetLogo Programming Guide for color values). There are 140 colors in NetLogo.</p> <p><b>Example:</b>  <b>set color</b> 15    ;; sets the color to bright red  <b>set color</b> red    ;; also sets the color to bright red</p>
<b>set color</b> R# G# B#	<p>Changes an agent's color to R# G# B# (RGB notation) where R# stands for how much red is in the color, G# stands for how much green is in the color, and B# stands for how much blue is in the color. Each R#, G#, and B# value can range between 0 and 255.</p> <p><b>Example:</b>  <b>set color</b> 255 0 0    ;; sets the color to bright red</p>
<b>repeat</b> # [commands]	<p>Repeats the set of commands in the square bracket a certain number (#) of times.</p> <p><b>Example:</b>          ;; the turtle turns right 5° and steps forward 1 step 20 times  <b>repeat</b> 20          [              <b>right</b> 5              <b>forward</b> 1          ]</p>
<b>while</b> [condition] [commands]	<p>Repeats the set of commands in the second set of square brackets while the condition in the first set of square brackets is true. When the condition within the first set of square brackets is false, the loop is exited.</p>
<b>let</b> <i>local_variable_name</i> value	<p>Creates a new local variable called <i>local_variable_name</i> and gives it the given value. A local variable is one that exists only within an enclosing block (such as a procedure or within <b>ask turtles</b> brackets).</p> <p><b>Example:</b></p>

	<b>ask turtles</b> [ <b>let num1 10</b> ;; creates the local variable <b>num1</b> and initializes it to <b>10</b> <b>forward num1</b> ;; uses the local variable to move each turtle forward <b>num1</b> ] ;; Note: Because it is <i>local</i> , you cannot access <b>num1</b> outside this <b>ask turtles</b> block.
<b>set variable_name value</b>	Sets variable ( <i>variable_name</i> ) to the given value. <b>Example:</b> <b>set num1 25</b> ;; changes the value of the local variable <b>num1</b> to <b>25</b> ;; Note: You must declare a variable before you can <b>set</b> it.