

## **Logo Programming Language Cheatsheet**

A concise cheat sheet for the Logo programming language, covering basic commands, syntax, and concepts. Perfect for beginners learning turtle graphics and fundamental programming principles.



#### **Basic Commands**

#### Movement

FORWARD fd or FD fd	Moves the turtle forward by fd units.
BACK bk or BK bk	Moves the turtle backward by bk units.
RIGHT rt or RT rt	Rotates the turtle clockwise by rt degrees.
CLEFT 1t or LT 1t	Rotates the turtle counter- clockwise by 1t degrees.
PENUP or	Lifts the pen, so the turtle moves without drawing.
PENDOWN or PD	Lowers the pen, so the turtle draws as it moves.
HOME	Returns the turtle to the center of the screen, pointing upwards.
CLEARSCREE N or CS	Clears the drawing area.

#### Pen Control

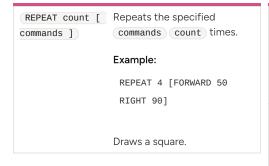
Sets the pen color. color can be a number or a color name (e.g., RED), BLUE).
Sets the pen size to size.  Example: SETPENSIZE [5 5]
Fills a closed shape with the current pen color.

### Turtle Visibility

SHOWTURTLE or ST	Makes the turtle visible.
HIDETURTLE OF HT	Hides the turtle.

#### **Control Structures**

#### Repetition



### Conditionals

IF condition [ commands ]	Executes the commands only if the condition is true.
	Example:  IF :x > 10 [FORWARD 50]
IFELSE	Executes commands_true if
condition [ commands_true	the (condition) is true, otherwise executes
commands_false	commands_false .  Example:
1)	IFELSE :x > 10 [FORWARD

50] [BACK 50]

#### Variable Assignment

MAKE "variable value	Assigns value to the variable named variable.
	Example:
	MAKE "size 50
	FORWARD :size
THING "variable	Retrieves the value of a variable.
variable	Example:
	SHOW THING "size

### **Procedures**

## **Defining Procedures**

Use TO procedure\_name to start a procedure definition and (END) to finish it.

TO square :size

REPEAT 4 [FORWARD :size RIGHT 90]

END

## Calling Procedures

Call a procedure by simply typing its name followed by any required arguments.

square 50

# Example Procedure with Parameters

TO polygon :sides :size

REPEAT :sides [FORWARD :size RIGHT 360/:sides]

END

polygon 6 30 ; Draws a hexagon with sides of length 30

Page 1 of 2 https://cheatsheetshero.com

# Math and Logic

## Arithmetic Operators

+	Addition
-	Subtraction
*	Multiplication
***	Division
%	Modulo (remainder)

## Comparison Operators

>	Greater than
<	Less than
=	Equal to

## Random Numbers

RANDOM limit	Generates a random integer between 0 and limit - 1.
	Example:
	FORWARD RANDOM 100