

TURTLE GRAPHICS CHEATSHEET

Turtle Pen

`turtle.pen(pencolor="red",
pensize=10, fillcolor="black")`

Pens have attributes such as color, size, and fillcolor.

`turtle.up()`

Sets the pen state to be up (not drawing).

`turtle.down()`

Sets the pen state to be down (drawing).

`turtle.color(r,g,b)`

See below

`turtle.color(s)`

Sets the color that the pen will draw until the color is changed. It takes either 1) three arguments, each a floating point number between 0.0 — 1.0, where the first the amount of red, the second is the amount of green, and the third is the amount of blue, or 2) a “color string” the name of a TK color (e.g., “black”, “red”, “blue”, ...)

`turtle.begin_fill()`

See below

`turtle.end_fill()`

To fill a figure, use `turtle.begin_fill()` before you start drawing the figure. Draw the figure. Then execute `turtle.end_fill()`. The figure drawn between the two fill commands will be filled with the present color setting.

`turtle.hideturtle()`

See below

`turtle.showturtle()`

Sets the state to hide / show the turtle. When shown, you see it as a small arrowhead pointed in the direction of the heading.

`turtle.fill(True)`

To fill a figure, use `turtle.fill(True)` before you start drawing the figure. The figure drawn will be filled with the present color setting.

Turtle Draw

`turtle.right(degrees)`

Turns the direction that the turtle is facing right (clockwise) by the amount indicated (in degrees).

`turtle.left(degrees)`

Turns the direction that the turtle is facing left (counterclockwise) by the amount indicated (in degrees).

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| <code>turtle.forward(distance)</code> | Moves the turtle forward (in the direction the turtle is facing) the distance indicated (in pixels). Draws a line if the pen is down, not if the pen is up. |
| <code>turtle.backward(distance)</code> | Moves the turtle backward (in the direction opposite to how the turtle is facing) the distance indicated (in pixels). Draws a line if the pen is down, not if the pen is up. |
| <code>turtle.setheading(angle)</code> | Sets the orientation of the turtle to angle. Here are some common directions in degrees: 0 (east) 90 (north) 180 (west) 270 (south) |
| <code>turtle.goto(x,y)</code> | Moves the turtle to the specified coordinates, drawing a straight line to the destination (x,y) if the pen is down, and not drawing if the pen is up. |
| <code>turtle.circle(radius)</code> | Draws a circle of the indicated radius. The turtle draws the circle tangent to the direction the turtle is facing. |

Turtle other

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| <code>turtle.xcor(),turtle.ycor()</code> | Returns the x – coordinate / y – coordinate of the current pen position. |
| <code>x, y = turtle.pos()</code> | Sets the variables x and y to the turtle's current position |
| <code>turtle.exitonclick()</code> or <code>turtle.done()</code> | To prevent the screen from closing. |
| <code>turtle.bye()</code> | Close the turtle drawing window |
| <code>turtle.speed(integer)</code> | Set the animation speed of the turtle. 1 = slowest, 10 = fastest. 0 turns off animation completely |
| <code>turtle.shape('turtle')</code> | Set the shape. You can also choose from arrow, square, circle, triangle and classic |

[Examples](#)