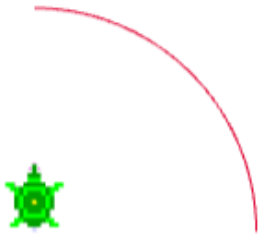


# turtleSpaces 2D Shape Guide



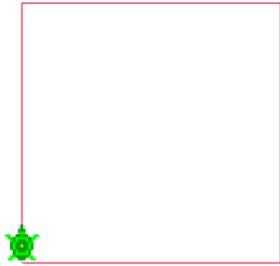
## arc

degrees | radius

Creates an arc. The arc is created around the turtle, and the turtle does not move. For arcs the turtle moves along, see `leftarc`, `rightarc`

`arc 90 50`

---



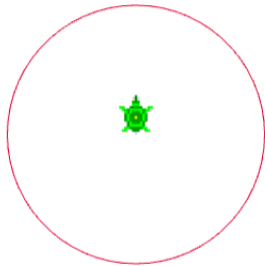
## box

size (number)

Creates a lined square of the specified size.

`box 100`

---



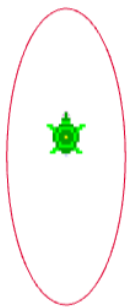
## circle

radius

Creates a lined circle at the specified radius around the turtle

`circle 50`

---



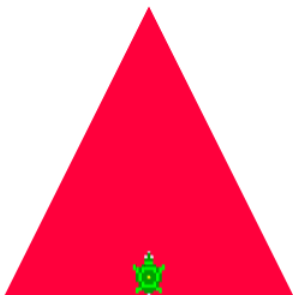
## ellipse

width (number) | height (number)

Creates a pen-drawn ellipse of the specified width and height.

`ellipse 20 50`

---

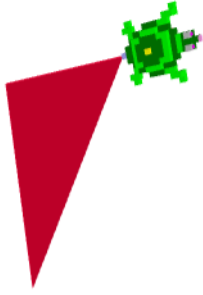


## fiso

width height

Creates a filled isosceles triangle with the center of its base at the root of the selected turtle and aligned with the turtle's orientation. See `iso`.

`fiso 50 100`



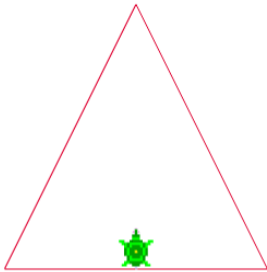
## frag

none

Makes a triangle from the current position and previous two turtle positions.

`forward 50 right 80 forward 30 frag`

---



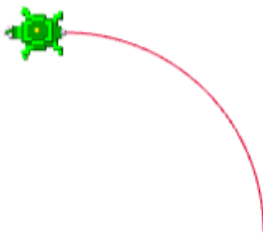
## iso

width height

Draws an isosceles triangle of the specified width and height, with the turtle positioned at the center of the lower side, and the triangle pointing in line with the turtle's current orientation. See `fiso`

`iso 50 100`

---



## leftarc (larc)

degrees radius

Draws an arc to the left of the turtle, starting at the turtle's position, and placing the turtle at its end. See `rightarc`, `arc`

`larc 90 50`

---



## lat

size

Creates a right-angle triangle to the left of the turtle. See `rat`

`lat 50`

---



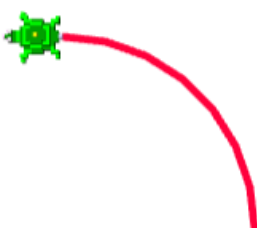
## line

length

Creates a line to the front of the turtle without moving the turtle.

`line 50`

---



## leftmarc (lmarc)

degrees radius

Marks (thick flat line) an arc to the left of the turtle, starting at the turtle's position, and placing the turtle at its end. Use `setmarkerwidth <size>` to set mark width. See `rightmarc`

`leftmarc 90 50`

## oval



width (number) | height (number)

Creates a filled oval of the specified width and height. See ellipse

`oval 50 20`

---

## pie



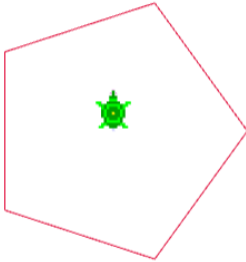
degrees (number) | radius (number)

Creates a pie-chart like object of the specified radius and degrees, starting at the turtle's right vector and moving counter-clockwise.

`pie 45 70`

---

## poly



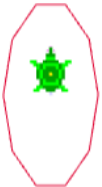
radius (number) | sides (number)

Draws a convex polygon of the specified radius and number of sides.

`poly 50 5`

---

## polyellipse



width (number) | height (number) | sides (number)

Draws a convex polygon of the specified dimensions and sides.

`polyellipse 15 30 10`

---

## polyoval



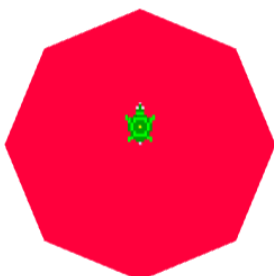
width (number) | height (number) | sides (number)

Creates a filled convex polygon of the specified dimensions and sides.

`polyoval 30 15 10`

---

## polyspot



radius (number) | sides (number)

Creates a filled convex polygon of the specified radius and number of sides.

`polyspot 50 8`



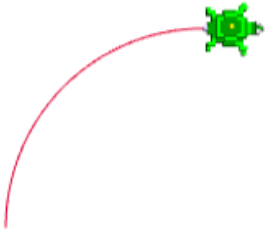
## quad

width | height

Creates a 'quad', a two-dimensional filled rectangle of the specified width and height, to the front and right of the turtle.

`quad 50 100`

---



## rightarc (rarc)

length

Draws an arc to the right of the turtle, starting at the turtle's position, and placing the turtle at its end. See leftarc, arc

`rarc 90 50`

---



## rat

size

Creates a right-angle triangle to the right of the turtle. See lat

`rat 50`

---



## rect

width (number) | height (number)

Creates a pen-drawn rectangle of the specified width and height to the front and right of the current turtle.

`rect 50 100`

---



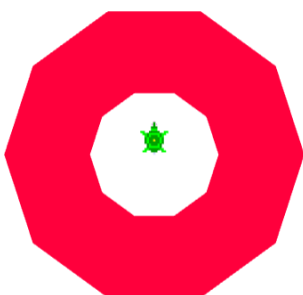
## rhombus

width (number) | height (number)

Creates a 2D rhombus of the specified width and height.

`rhombus 20 40`

---



## ring

thickness (number) | inner radius (number) | segments (number)

Creates a two-dimensional ring of the specified thickness, inner radius and segments. A segment number of 4 creates a square picture frame, while 3 creates a triangle. See ringarc

`ring 40 30 10`

## ringarc



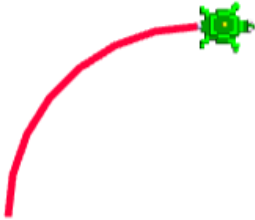
thickness (number) | inner radius (number) | totalsegments (number) | arcsegments

Creates a partial ring of the specified number of segments. So, if the totalsegments specified were 10, an arcsegments value of 5 would create a half-ring.

`ringarc 40 30 10 5`

---

## rightmarc (rmarc)



degrees | radius

Marks (thick flat line) an arc to the right of the turtle, starting at the turtle's position, and placing the turtle at its end. See leftmarc

`rightmarc 90 50`

---

## skewfiso



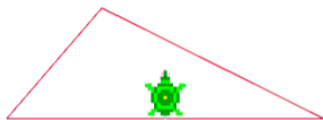
width (turtle-units) | height | degrees

Creates a filled isosceles triangle “skewed” by the given number of degrees in the X axis. Negative degree values are an acceptable input. See fiso

`skewfiso 40 50 45`

---

## skewiso



width (turtle-units) | height | degrees

Creates an isosceles triangle “skewed” by the given number of degrees in the X axis. Negative degree values are an acceptable input. See iso

`skewiso 50 40 -30`

---

## skewquad



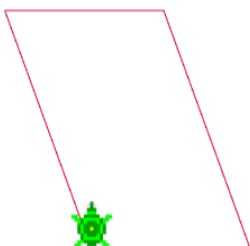
width (turtle-units) | height (turtle-units) | degrees

Creates a quad “skewed” by the specified number of degrees, a value which can be negative. See quad

`skewquad 50 80 -40`

---

## skewrect



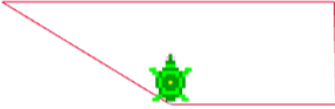
width (turtle-units) | height | degrees

Creates a “skewed” rectangle of the given width and height, skewed by the specified number of degrees, a value which can be negative.

`skewrect 50 80 -20`

## skewtraperect

width (turtle-units) | height | ratio | degrees



Creates a “skewed” trapezoidal rectangle of the specified width and height, whose top is affected by the provided ratio and who is skewed by the specified number of degrees, a value which can be negative. See rect

`skewtraperect 50 40 2 -40`

---

## skewtrapezoid

width (turtle-units) | height | ratio | degrees



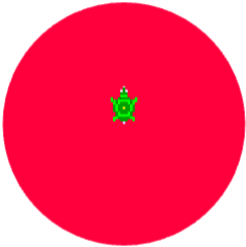
Creates a skewed trapezoidal quad of the specified width and height, whose top is affected by the provided ratio and who is skewed by the specified number of degrees, a value which can be negative.

`skewtrapezoid 50 40 3 20`

---

## spot

radius (number)



Creates a filled circle of the specified radius around the turtle.

`spot 50`

---

## square

size (number)



Creates a filled square of the specified size to the right-front of the turtle.

`square 100`

---

## traperect

width (turtle-units) | height | ratio



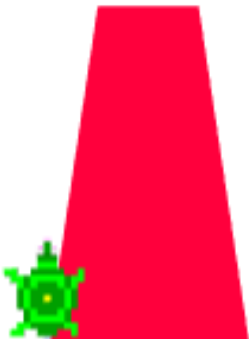
Creates a trapezoidal rectangle of the given width, height and with its far end contracted or expanded by the given ratio. See rect

`traperect 40 30 2`

---

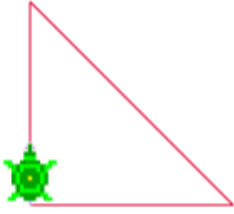
## trapezoid

width (turtle-units) | height | ratio



Creates a quad whose far ‘end’ is expanded or contracted based on the provided ratio. See quad, skewtrapezoid

`trapezoid 30 50 0.5`



## triangle

width (number) | height (number)

Creates a wireframe (pen-drawn) right-angle triangle to the front and right of the turtle.

`triangle 50 50`

---



## wedge

turtle-steps-right turtle-steps-forward

Creates a filled right-angle triangle turtle-steps-right from the turtle and turtle-steps-forward from the turtle in dimensions.

`wedge 100 50`