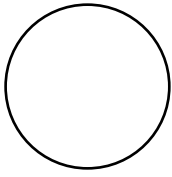


ACTIVITY 22

Circles & Arcs 1

1. **Circle!** Use any polygon procedure to draw a circle. You need 1 side and to turn 1 degree. Follow the example below.

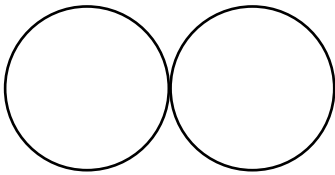


Type in: **repeat 360 [fd 1 rt 1]** then press **Enter**.

What does **fd** stand for? _____

What does **rt** stand for? _____

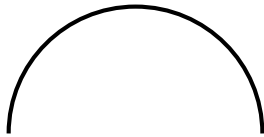
2. **Two circles!** To make the circle go the other way and draw two circles next to one another, change the right turn (**rt**) to a left turn (**lt**).



Type in: **repeat 360 [fd 1 rt 1]** then press **Enter**.

Type in: **repeat 360 [fd 1 lt 1]** then press **Enter**.

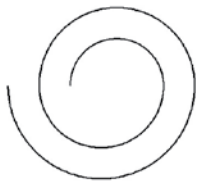
3. **Arc!** To make a semi-circle or an arc, you need to adjust how many turns it makes – e.g. reduce it by half to draw half the circle. Follow the example below.



Type in: **repeat 180 [fd 1 rt 1]** then press **Enter**.

What does 180 stand for? _____

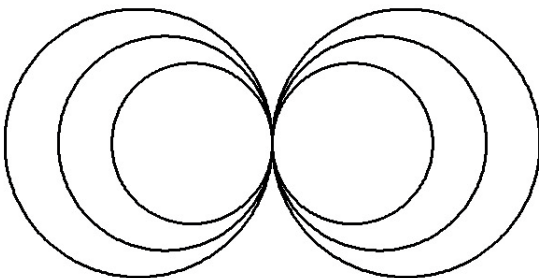
4. **Spiral!** Gradually change the step size. Follow the example below.



Type in: **repeat 180 [fd 1.5 rt 1] repeat 180 [fd 2 rt 1]**

repeat 180 [fd 2.5 rt 1] repeat 180 [fd 3 rt 1] then press **Enter**.

5. **More circles!** To get the effect below, gradually increase the step size (**fd**) of a circle.



Type in: **repeat 360 [fd 1.5 rt 1]**

Type in: **repeat 360 [fd 1.5 lt 1]**

Type in: **repeat 360 [fd 2 rt 1]**

Type in: **repeat 360 [fd 2 lt 1]**

Type in: **repeat 360 [fd 2.5 lt 1]**

Type in: **repeat 360 [fd 2.5 rt 1]**

Then press **Enter**.

6. **Experiment!** Create more patterns with circles, arcs and spirals. Print out your most interesting ones. Use the back of this sheet to keep a record of the procedures.