**Name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

LOGO Lesson 3

# Do Now

**Underneath each set of instructions write a shorter version using the repeat command**

|  |  |  |
| --- | --- | --- |
| clear  home  fd 100  rt 45  fd 100  rt 45  fd 100  rt 45  fd 100  rt 45  fd 100  rt 45  fd 100  rt 45  fd 100  rt 45  fd 100  rt 45 | clear  home  fd 100  lt 72  fd 100  lt 72  fd 100  lt 72  fd 100  lt 72  fd 100  lt 72 | clear  home  fd 50  lt 90  fd 80  lt 90  fd 50  lt 90  fd 80  lt 90 |

**Homework written down? Green pen out?**

**Extension:**

* **Which shape does each command make?**
* Sketch ands label the length and angles for each shape.

# Learning objective:

To be able to use LOGO to draw circles and curves

# Activity One – Drawing a circle

**Log on to tiny.cc/mathslogo2 and type in the following code**

clear

home

repeat 10

fd 20

rt 36

end

**What shape does this make?** 🖉 …………………………………………………………………………………..

**What happens when we replace repeat 10 with repeat 20?** 🖉 ………………………………......……………... .............................................................................................................................………………….....…….……………..

**Predict how many repeats you will need to draw a full circle°?** 🖉 I predict I will need ....…………………………

**Now type in this code:**

clear

home

repeat 72

fd 5

rt 5

end

**What shape does this make?** 🖉 …………………………………………………………………………………..

Both these codes make the same shape but the numbers are different.

**What are the main differences between the two codes?** 🖉 ……………………………………………………………………………………..

……………………………………………………………………………………………………………………………………………………………………………………..

……………………………………………………………………………………………………………………………………………………………………………………..

Let’s look at the code more closely. **Answer the questions.**

repeat 72

**What is the number 72 doing?** 🖉 ………………………………………………….

………………………………………………………………………………………………………

fd 5

**What is this code between ‘repeat’ and ‘end’ doing?** 🖉 ……………

………………………………………………………………………………………………………

lt 5

end

**What is the word ‘end’ here for?** 🖉 …………………………………………………………………….

**LOGO Log #1**

**Write down what you have learned about LOGO so far today.**

Today, I have learned …………………………………………………………………………………………………………………………………………………..

…………………………………………………………………………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………………………………………………………………………….

# Activity Two – Drawing letters with curves

Here is the code for a C.

clear

home

lt 180

repeat 36

fd 5

rt 5

end

You can type in just to check if you like but you should be able to work it out.

**Now complete the code for a S below using ‘repeat’.**

clear

You can type your completed code into LOGO to see if this works.

home

repeat …………

fd 5

lt 5

…………

repeat …………

fd 5

………… 5

…………

**Practice**

**Try to write you name in LOGO.**

You can use block letters, curved letters, capitals or lower case.

# Merit Challenges

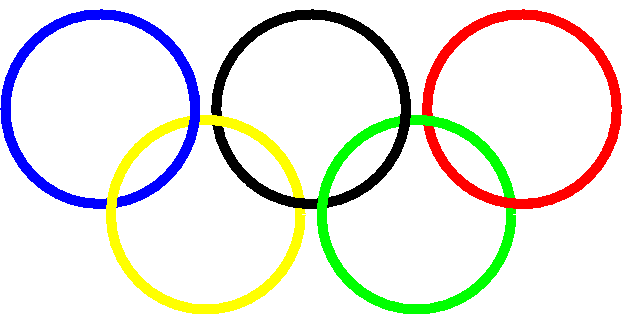
yellow

green

red

black

blue

🡨 This is the Olympic logo

**Your Merit Challenge is to create this logo in LOGO. You must use the five different pen colours on LOGO for the 5 rings.**

Remember – This programme is American so the command is pencolor with no u!

# Plenary– LOGO exam question

The shape on the right was produced by the code:

clear

home

repeat 5

fd 100

rt 72

end

1. **Name the shape \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **Modify the instructions to make the edges of the shape twice as long.**

clear

home

1. **Modify the instructions to draw 2 of these shapes touching each other edge to edge.**

clear

home