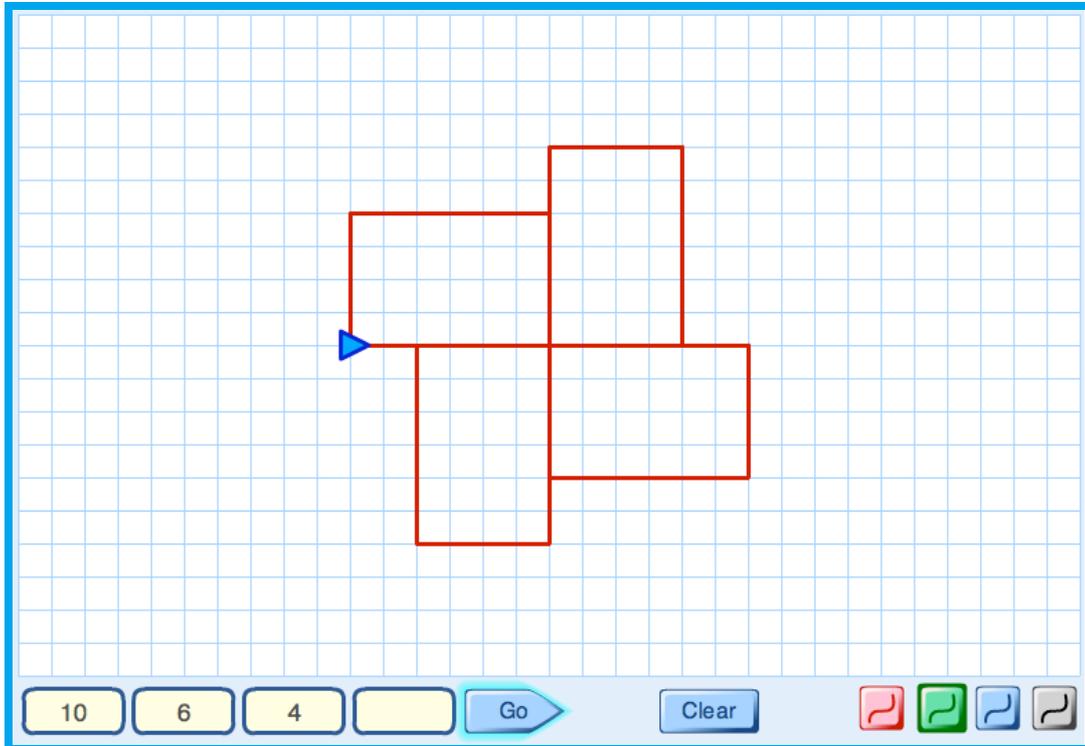## 1   Two microworlds to explore

Spirolaterals

Type some numbers into the *Spirolaterals* machine.
Press "Go" and watch what happens.

- How do the numbers control what is drawn on the screen?

- List some questions to explore.
  These might start like this:
  "How can we make the computer draw ....?"
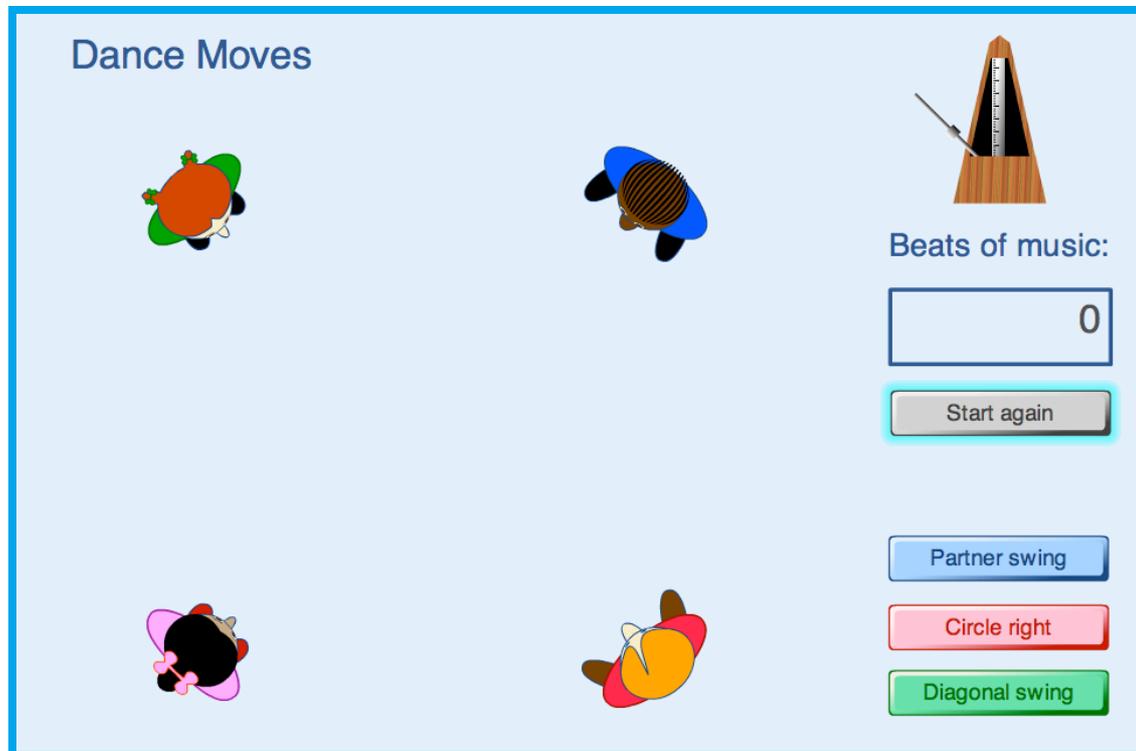 "What will happen if we .....?"

  Try and answer your own questions!

- Make up some conjectures. These might start like this:
  " When you use three numbers then ..."
  " When you repeat a number then ..."
  " If you change the order of the numbers then ..."

  Can you *prove* your conjectures?

1   Two microworlds to explore (continued)

Dance Moves

Try clicking the different buttons on the software:

- Describe, as precisely as you can, what each button does.

- Write down some problems that occur to you.
  These might start like this:
  "How many different ways...?"
  "How can I make the dancers move so that...?"
  "How many beats would....?"
  "Can I get the dancers to do .... in .... beats?"

Now try to solve your own problem.

- Make up some conjectures.
  These might start like this:
  " You can make the dancers reach every position in ..."
  " It is impossible to ..."

  Can you *prove* your conjectures?