

## Go further

1 Copy these sentences and fill in the blanks using the words below.

infinite

iteration

count-controlled

loop

a An \_\_\_\_\_ is one execution of a loop.

There are two types of loops \_\_\_\_\_ and  
\_\_\_\_\_ loops.

b A count-controlled \_\_\_\_\_ is repeated a  
fixed number of times.

2 Choose the correct ending for the sentence.

A count-controlled loop \_\_\_\_\_

- a loops an indefinite number of times.
- b uses a counter to keep track of the number of times a loop is executed.
- c cannot keep track of the number of times a loop is executed.
- d is executed an unspecified number of times.

3 Discuss the following question with your partner:

Why do you need to shorten a loop using repeat command?

**Go further**

4 Your school is having a charity cake sale and wants to show how many cakes have been baked.

a Look at the algorithm below.

**Algorithm name: Cake donation**

Step	Instruction
1	Start program when Green Flag is clicked
2	Choose a random position on the screen
3	Wait 1 second
4	Display the Cake sprite
5	Choose a random position on the screen
6	Wait 1 second
7	Display the Cake sprite
8	Choose a random position on the screen
9	Wait 1 second
10	Display the Cake sprite
11	Stop program

Go further

b Rewrite the algorithm so that it is shorter.

Algorithm name: Cake donation

Step	Instruction
1	Start program when Green Flag is clicked
2	
3	
4	
5	
6	Stop program

c Create a Scratch program from your rewritten algorithm using the **Repeat** block.  
d If 25 people baked, how would your algorithm change?

If 25 people baked cakes, step 5 in the algorithm would change to:  
Repeat step \_\_\_\_ to 4  
\_\_\_\_ times.