



Count controlled loops

DOG PARSONS CHALLENGE

The code in the dog has been chosen but is unconnected.

Read the two algorithms below and use these to assemble the two code sections.

Test it to see if it works

Then check your answer with the answer sheep



Dog Algorithms

Green flag start Go to x -59 and y -34 degrees Point right (90 degrees) Pause for one second Wait until touching girl sprite before continuing Loop 20 times Show next dog sprite costume Pause for 0.3 of a second	Green flag start Pause for one second Wait until touching girl sprite before continuing Loop 130 times Walk two steps Point down (180 degrees) Loop 60 times Walk two steps Point left (-90 degrees)
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Name



Count controlled loops

USE (Run the code and answer the questions. Don't make any changes)

Look at the code inside the Girl



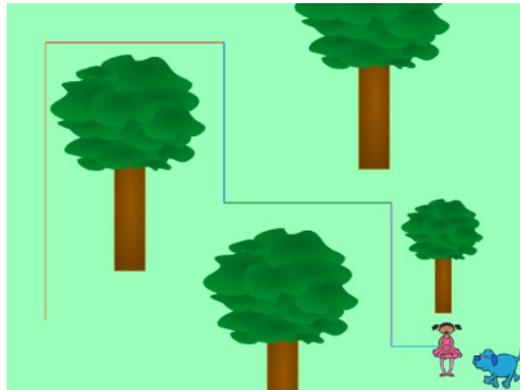
Girl Sprite Questions

- 1, Which block starts the code?
- 2, What is the first thing the girl says?
- 3, How many count controlled loops are there?
- 4, How many times will the first **move 1 step** code block be run when the program has started? HINT What is it inside?
- 5, What is the smallest count controlled loop?
- 6, Each loop draws a line. Draw a line to connect the loop to its coloured line.

Count controlled loop



7, Which block changes the girls direction?



Look at the code inside the Dog



Dog Sprite Questions

- 8, Why does the dog wait until the Girl arrives?
- 9, Which blocks get repeated 20 times?

Now mark your USE work using the answer sheep



Name

Dog Chase
PARSONS USE MODIFY CREATE Page 3

Start Scratch and load
dogchase



Count controlled loops

MODIFY Questions (Run the code and make changes)

1, Can you make the Girl say something different when she finally finds the dog?
What did you change?



2, Can you make the Girl bump into the dog at the end?
What did you change?



3, Can you make the dog say something after the girl bumps into him?
What code did you add? HINT Wait until touching.....



4, Can you make the dog go twice as fast but still only go the same distance?
What did you change? HINT You will need to make two changes



Now mark your **USE** work using the answer 

Name



Count controlled loops

CREATE INSIDE (Choose one or more of these to make)

1, Design and program your own route through the trees for the girl to take. Keep the code and modify it. Draw your new route on the picture below.



2, Add another character to the woods that the girl meets. Program the character to do or say something when the girl touches them.

3, Program the large tree to say or do something when the girl touches it.

4, Draw a spider sprite that drops out of a tree using the pen command as its web. Drag the sprite to its start position and drag out a go to x and y block so the spider always starts in the same position (initialisation).

CREATE NEW (Do this if you have time or make it at home)

Design and make your own moving animation using count controlled loops. Draw a picture below to help you plan it.

My idea

My design

Name

Dog Chase
PARSONS USE MODIFY CREATE
DOG PARSONS CHALLENGE ANSWERS

Scratch 3

The code for Scratch 3 consists of two scripts. The first script starts with 'when green flag clicked', followed by 'go to x: -59 y: -34', 'point in direction 90', 'wait 1 seconds', and 'wait until touching Girl ?'. A 'repeat' loop with 20 iterations contains 'next costume' and 'wait 0.3 seconds'. The second script starts with 'when green flag clicked', followed by 'wait 1 seconds', 'wait until touching Girl ?', a 'repeat' loop with 130 iterations containing 'move 2 steps', 'point in direction 180', another 'repeat' loop with 60 iterations containing 'move 2 steps', and finally 'point in direction -90'.

Scratch 2

The code for Scratch 2 consists of two scripts. The first script starts with 'when green flag clicked', followed by 'wait 1 secs', 'wait until touching Girl ?', a 'repeat' loop with 130 iterations containing 'move 2 steps', 'point in direction 180', another 'repeat' loop with 60 iterations containing 'move 2 steps', and finally 'point in direction -90'. The second script starts with 'when green flag clicked', followed by 'go to x: -59 y: -34', 'point in direction 90', 'wait 1 secs', 'wait until touching Girl ?', and a 'repeat' loop with 20 iterations containing 'next costume' and 'wait 0.3 secs'.



Count controlled loops

MODIFY Questions (Run the code and make changes)

1, Can you make the Girl say something different when she finally finds the dog?

What did you change?

Change say there you are to something else (1 mark)

2, Can you make the Girl bump into the dog at the end?

What did you change?

Change repeat 50 loop to a higher number (1 mark)

3, Can you make the dog say something after the girl bumps into him?

What code did you add? HINT Wait until touching.....

Add a wait until touching dog section and then a say command after this (1 mark)

4, Can you make the dog go twice as fast but still only go the same distance?

What did you change?

Change repeat 130 to repeat 65 and increase move 2 steps to move 4 steps (1 mark)

Change repeat 120 to repeat 60 and increase move 1 steps to move 2 steps (1 mark)

(other correct answers are available)