G4 Early Assessment
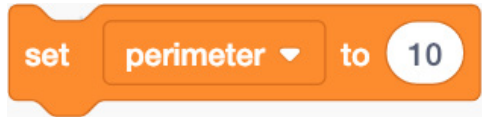
NAME

SCRATCH ID   DATE   TIME

In Problems 1 and 2, circle True or False.

① In this Scratch block `set perimeter ▾ to 10`,   **True**   **False**

"perimeter" is a variable.

② A computer program cannot be broken down into smaller parts.   **True**   **False**

③ A formula for calculating the perimeter of a rectangle is
$$perimeter = \ length + width + length + width.$$
In this formula, which word do we use to describe *length*?
   a. Loop
   b. Sprite
   c. Variable
   d. Block

④ Fill in the blanks to make conditional statements that are valid.

   a. If _____ , then put on a jacket.

   b. If I see a spider, then _____ .

⑤ Which statement is a conditional?
   a. If number is 10, then say "hello world".
   b. If number is 10.
   c. Repeat 2 times: Say "hello world" for 2 seconds.
   d. Say "hello world" for 2 seconds.

G4 Early Assessment (continued)

⑥ Helena wrote this code.
How would you change the code so that it would use the user input for length and width of a rectangle to calculate the area of that rectangle?

_____

_____

_____

_____

_____

_____

_____

⑦ Paula bought her 6 friends each an ice cream cone and is taking them over to her friends. She can only carry 4 cones at once. One way to carry the cones is listed below. Write two other ways that Paula can carry the cones without dropping them.
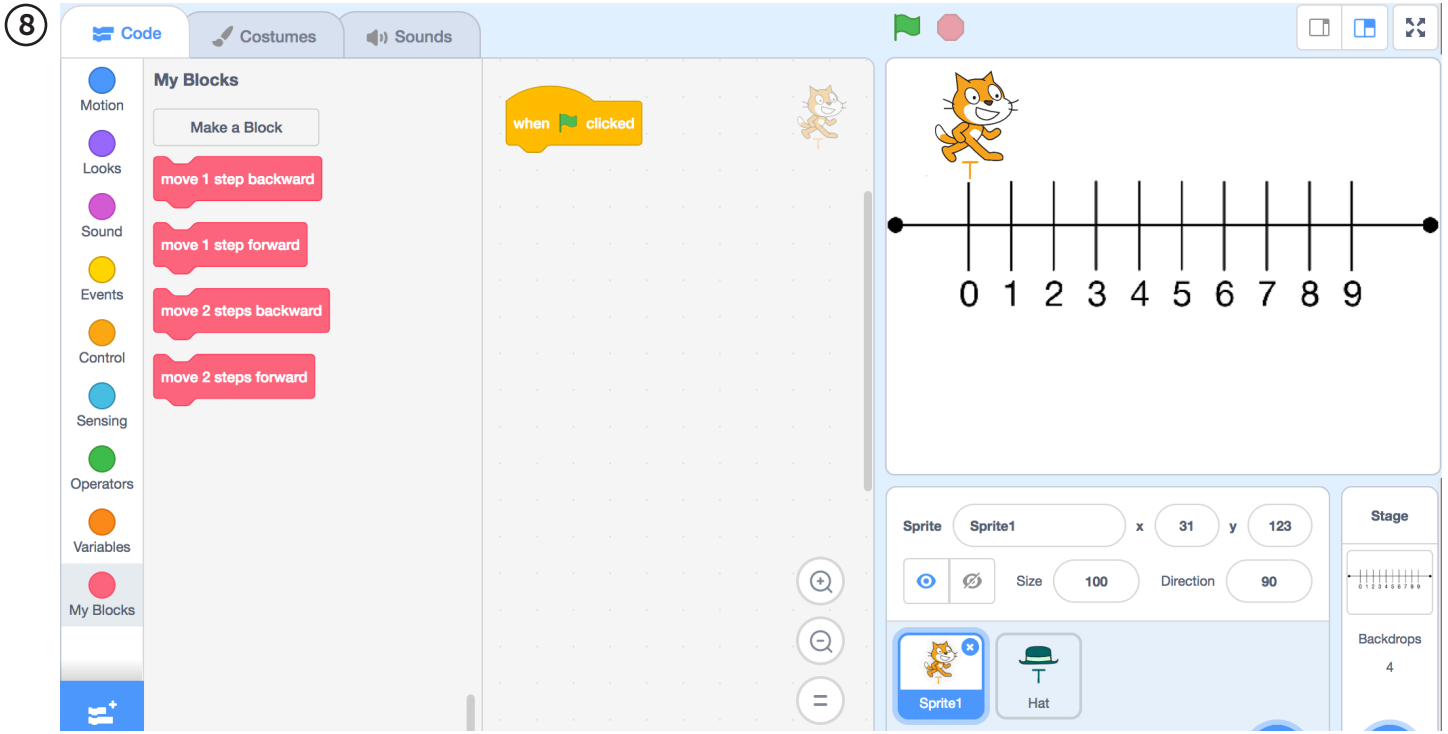
Example:

- Carry 2 cones to her friends
- Carry 1 cone to her friend
- Carry 3 cones to her friends

One Way: **Another Way:**

⑧

My Blocks

Make a Block

move 1 step backward

move 1 step forward

move 2 steps backward

move 2 steps forward

when 🚩 clicked

0 1 2 3 4 5 6 7 8 9

| Sprite | Sprite1 | x | 31 | y | 123 |

Size 100   Direction 90

Sprite1   Hat

Stage

Backdrops 4

Create 2 different scripts (sets of instructions) to move the cat so that he stops at 5 on the number line. **Use only the blocks shown above.** Write or draw your scripts in the boxes.
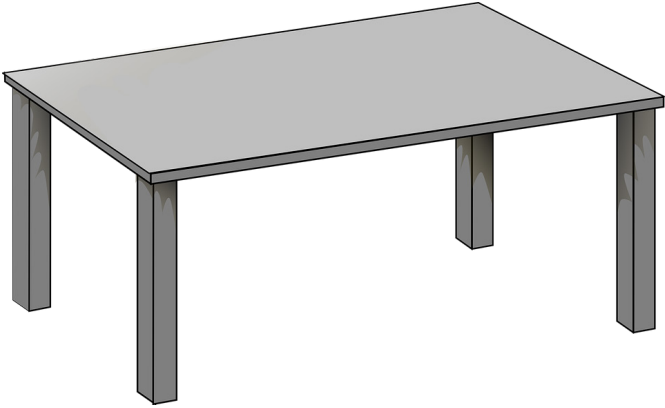
Script A	Script B
when 🚩 clicked	when 🚩 clicked

9) A factory makes tables. Each table has 4 legs. Write instructions to program a computer to ask for the number of tables and then say the number of legs needed. Pretend that the computer has variables named "tables" and "legs."

legs

tables

Your instructions: