

Grade 4 Late Assessment - Teacher Resource

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The following versions of this document are available:

- [Google Doc: Grade 4 Late Assessment - Teacher Resource](#) (most accessible version)
- [PDF: Grade 4 Late Assessment - Teacher Resource](#) (most portable version)

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Front Matter

This assessment includes 7 items from two CT topics (4 Variables; 3 Repetition items). Five items (#3, #4, #5, #6, and #7) use images of the Scratch interface and/or Scratch blocks.

Each item has an exemplar response(s) and a scoring guide and/or rubric included (and when applicable, other information to help with interpreting student responses). The scoring guidance and rubrics were developed by our project to assist in coding and interpreting student responses, and are explicitly focused on using student responses to make inferences about the relevant knowledge, skills, and abilities that we identified from the learning trajectories and built into our item design process. As such, other end users of these assessment instruments may choose to adapt the scoring guidance and/or rubrics to match their purposes and students.

Items

#01

Meta-data

- Item code: V.09.a
- Trajectory: Variable

Item

1) Which of the following is used to store input from a user?

- A. Loop
- B. Sprite
- C. Variable
- D. Block

Exemplar response(s)

C

Scoring Guidance

- Choice "C"=1
- Any other choice= 0

Rubric(s)

None

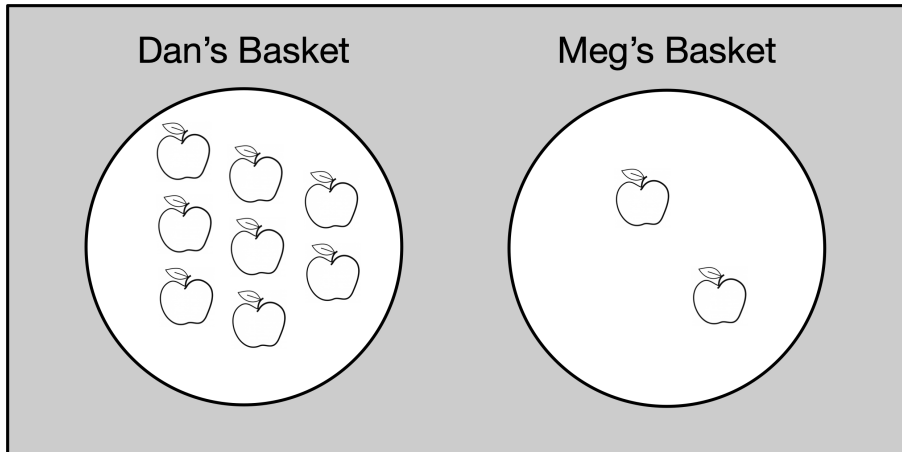
#02

Meta-data

- Item code: R.05.b
- Trajectory: Repetition

Item

2) Dan's basket has 8 apples and Meg's basket has 2 apples.



Instructions:

Repeat until Dan only has 4 apples:

- Take 1 apple from Dan's basket and put on table
- Take 1 apple from table and put in Meg's basket

If the above instructions are followed, how many apples will be in Meg's basket?

Exemplar response(s)

6

Scoring Guidance

- Answer "6"=1
- Any other answer= 0

Rubric(s)

None

#03

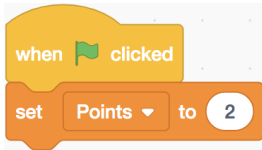
Meta-data

- Item code: V.13.a
- Trajectory: Variable



Item

3)

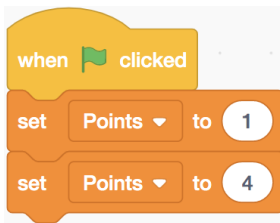
A. You run this code:




```
when clicked
  set Points to 2
```

- What is the value in  ?
- What value is  ?

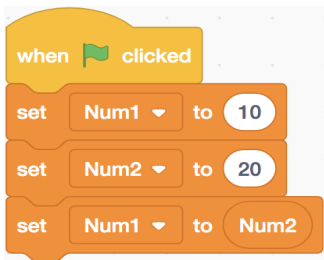
B. You run this code:





```
when clicked
  set Points to 1
  set Points to 4
```

- What is the value in  ?

C. You run this code:



```
when clicked
  set Num1 to 10
  set Num2 to 20
  set Num1 to Num2
```

- What is the value in  ?
- What is the value in  ?

Exemplar response(s)

A.

- 2
- 7

B.

- 4

C.

- 20
- 20

Scoring Guidance

Correct answers = 2,7,4,20,20.

While we provide the correct answers, the decision about how to calculate a score(s) for this item is left up to the end user. The entire item could be scored overall (i.e., 1 score on the item), each part (a, b, c) could be scored separately (i.e., 3 scores on the item), or each response could be scored separately (i.e., 5 scores on the item).

Rubric(s)

None

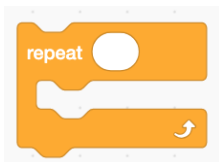
#04

Meta-data

- Item code: R.01.c
- Trajectory: Repetition

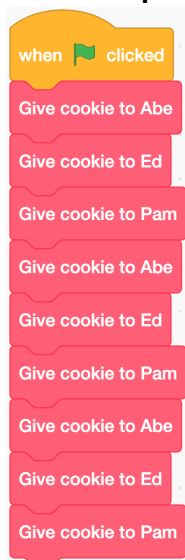
Item

4) Eve has 9 cookies to give away to her friends Abe, Ed, and Pam. She wants to give each friend an equal number of cookies. Eve wrote a script for how to give away the cookies.

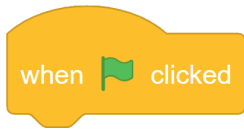


Modify Eve's script. Use a **repeat** block at least once.

Eve's Script:

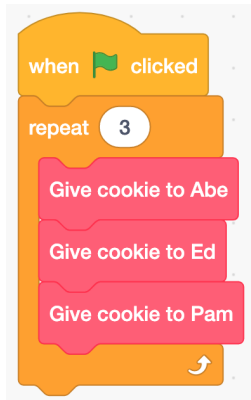


Your Script:

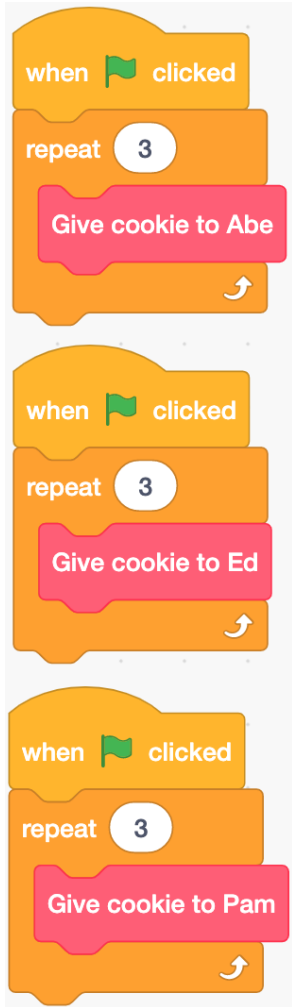


Exemplar response(s)

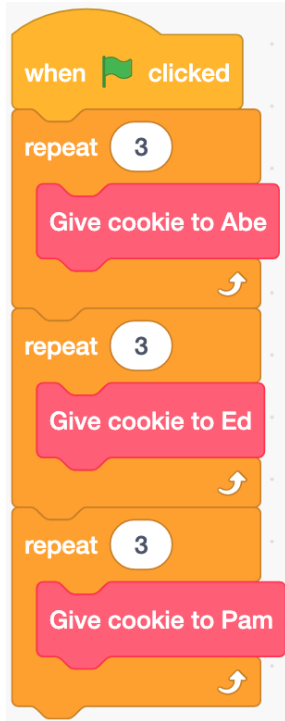
Example 1



Example 2



Example 3



Scoring Guidance

- Similar to exemplar = 1
- Incorrect way = 0
- Must use "repeat 3 times" instruction

Rubric(s)

None

#05

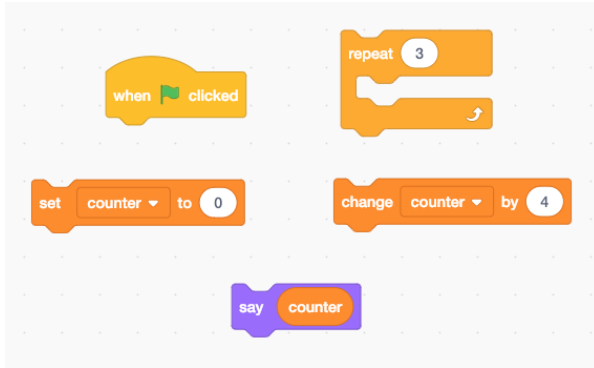
Meta-data

- Item code: R.04.b
- Trajectory: Repetition

Item

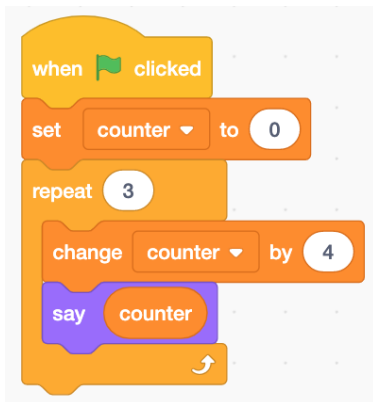
5) Use the blocks below. Draw a script that will make the computer say the numbers 4, 8, and 12.

Blocks



Your script:

Exemplar response(s)



Scoring Guidance

- Similar to exemplar = 1
- Anything else = 0
- Must use all blocks in correct order.

Rubric(s)

None

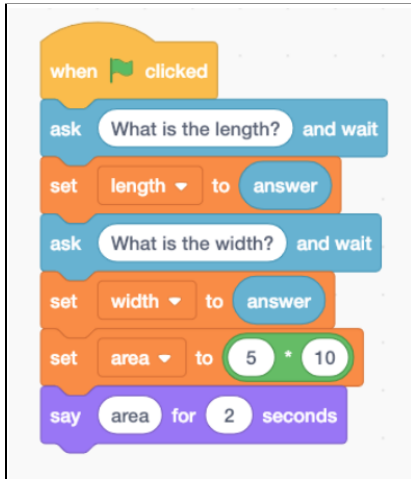
#06

Meta-data

- Item code: V.07.d
- Trajectory: Variable

Item

6) Liz wrote the code below to say the area of a rectangle when the user enters the length and width. Fill in the arguments (white ovals) with the correct variables.



Exemplar response(s)

Set [area] to (length) * (width)

Scoring Guidance

- Indicates both variables (length and width) should be used = 2
- indicates one variable (length, width, or answer) should be used = 1
- anything else = 0

Rubric(s)

None

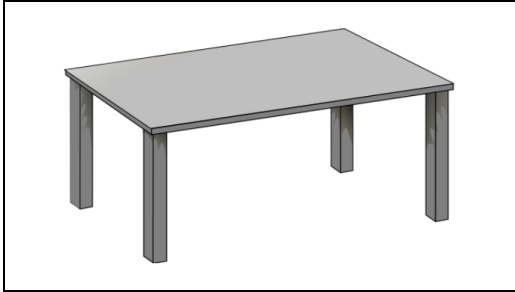
#07

Meta-data

- Item code: V.14.a
- Trajectory: Variables

Item

7) 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:

Exemplar response(s)

1. Ask for number of tables
2. Set "tables" variable to the answer/ number
3. Set "legs" variable equal to 4 x "tables"
4. Say "legs"

Scoring Guidance

- Code "features" of the student response individually:
 - Feature 1: Student's instructions ask the user to input a value (e.g., tables) = 1
 - Feature 2: Student's instructions store a value in a variable (i.e., assignment) = 1
 - Feature 3: Student's instructions perform a calculation using a variable (e.g., tables x 4) = 1
 - Feature 4: Student's instructions output the value in a variable (e.g., say legs) = 1

Rubric(s)

None