UNIVERSITY OF CALIFORNIA, BERKELEY
Department of Electrical Engineering and Computer Sciences
Computer Science Division

CS10 Fall 2026 **TA: Nahee Jeong**

Discussion 1: Welcome to CS10!



SOLUTIONS

Instructions:

- ~~If you're attending this section in-person, please log into iClicker!~~
- ~~If you missed this discussion, fill out this entire worksheet, and upload it to the Gradescope assignment titled "Discussion-1" by next Discussion.~~
- ~~Please open up snap.berkeley.edu/run on your computer.~~
- ~~Join tinyurl.com/fa25-disc1~~
- ~~For today's discussion during the Snap! Scavenger Hunt, you can either explain the process in words, show a screenshot, or draw the block/process.~~

Group Activity

- Ask the person to your right / left if they know how to whistle! See who can whistle the loudest. Who can whistle the longest?

Question of the day (to be answered in feedback form at the end of class)**:**

- What was the funnest / most enjoyable thing you did over the summer?

Required (Pages 2 - 5)

Q1. Abstraction

I. What are the two principles that comprise abstraction?

A. Generalization

B. Detail removal

II. When Rhoshandiatellyneshiaunneveshenk orders at cafes, she often tells baristas that her name is "R" rather than "Rhoshandiatellyneshiaunneveshenk". This is an example of:

A. Object-Oriented Programming
B. Generalization
C. Mutability
D. Detail Removal
E. None of the Above

The answer is "detail removal", since Rhoshandiatellyneshiaunneveshenk is using the simplified "R" as a nickname when ordering, removing the details of their entire name.

III. In the movie Oppenheimer, Niels Bohr's character said: (Paraphrased) "The important thing isn't that you can *read* this music, it is that you can *hear* it."

The idea that one can appreciate music without knowing how to read musical notation is a good example of _____.

A. Detail Removal
B. Generalization

For this example, I think you could argue for both detail removal and

generalization. But the idea here is similar to the idea of the car example in lecture. You don't need to have studied musical notation or play an instrument to listen and appreciate it. The details and complexity of music theory is unnecessary to enjoying it.

IV. What is an example of generalization and detail removal in your daily life?

A. Using the same example, can you think of an instance where generalization or detail removal could cause an issue?

Snap*!* Scavenger Hunt

Part-1

1. How do I run a block or set of code (also known as a script)?

    - By clicking on the script or block of code

2. My sprite has disappeared off screen! How can I get it back so that it is visible?

    - Use the “go to x: _ y: _” block. This will place your sprite back at the center of the stage

3. How do you download your project? How do you save your project to the cloud?

    - To download your project, there are two way:
        - Click the file tab on the right top side, and select “export project”
        - Click the file tab on the right top side, and select, “save as”. Then click the “Computer” option and save to your computer.
    - To save your project to the cloud:
        - Click the file tab on the right top side, and select, “save as”. Then click the “Cloud” option and save to your cloud account.

4. How can I download just a specific set of code without downloading the whole file?

    - You can right click on the script/code, click “export script” or “script pic” and this will download just that bit of code.
        - You upload the code, you can just drag and drop it onto the Snap! screen

5. How do you duplicate a block or script?

    - Right click on the block/script and click “duplicate”

6. How do you search for blocks using your keyboard? *Hint: there are actually a couple ways.*

    - In the palette, you can the magnifying glass icon at the top right, and this will allow you to type and search for a block
    - Alternatively, you can click the keyboard icon in the scripting area at the top right to search
    - Additionally, you can press ctrl (or command if you have Mac) + f on our keyboard
    - The last way, if to hold down the shift key on your keyboard and click on the scripting area

7. How do you make another sprite?

    - You can click the sprite/turtle icon which is located under the stage

8. How do I copy code from one sprite to another?

    - Drag the code to the sprite you want to copy to. Then, when you go to the sprite, you'll see the code copied there

9. How do I import an image from the internet?

    - Drag and drop the image into Snap!

10. How do I delete a block or script (series of blocks connected) from the stage?

    - You can either:
        - Right click on the block/script and click "delete"
        - Or, you can drag the code to the palette (which will also delete it)

11. How do you quickly change an *add* block to a *subtract* block?
    Hint: You will need to right click on the block.

    - Right click on the block, and click "relabel", then choose the subtraction

option

12. You're running a program in Snap*!*, but it's taking too long. How might you speed it up?

    - You can click the cog wheel icon located at the top left, then click "Turbo Mode"
    - Alternatively, you can also put the code in a "wrap" block under the Control category

13. How do I create my own block (a custom block)?

    - You can right click on the scripting area and click "Make a Block"
    - Or, you can scroll down in the palette and click the "Make a Block" button
    - Or, you can click the "+" icon at the top right of the palette under the magfinity glass icon.

14. Which symbol out of {!, @, #, $, %, ^, &, *, ~} helps you create a variable as you are typing the name of a custom block? *Hint: You can do this when you are naming your block, after clicking 'make a block'*

    - Use the % symbol to quickly make an input name for a function
        - Example: function %input1 %input2

15. To help your friend with their math homework, you want to find the tangent of 0. Which block in Snap*!* allows you to do that? *(Hint: Look for a block that encompasses various mathematical operations.)*

    - In the Operators category, there is a "sqrt of _" block. If you click the "sqrt", you will see a dropdown, where you are able to select tan (which will find the tangent)

16. How can you turn the > operator into greater than or equal to without adding the = block? *Hint: What happens when you right click on the block?*

    - Right click on the block, click "relabel", and then choose the greater than

or equal to sign (it has a bar right below the > symbol)

Part-2

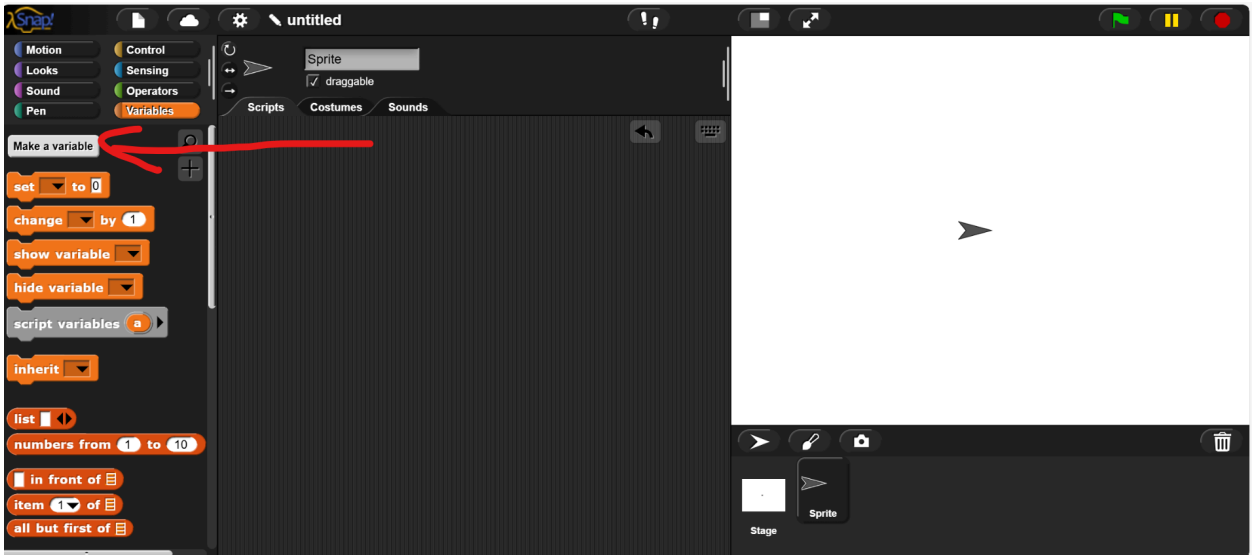
For each of the tasks listed below, find a Snap*!* block that accomplishes it. There should be a single block that does each of these.

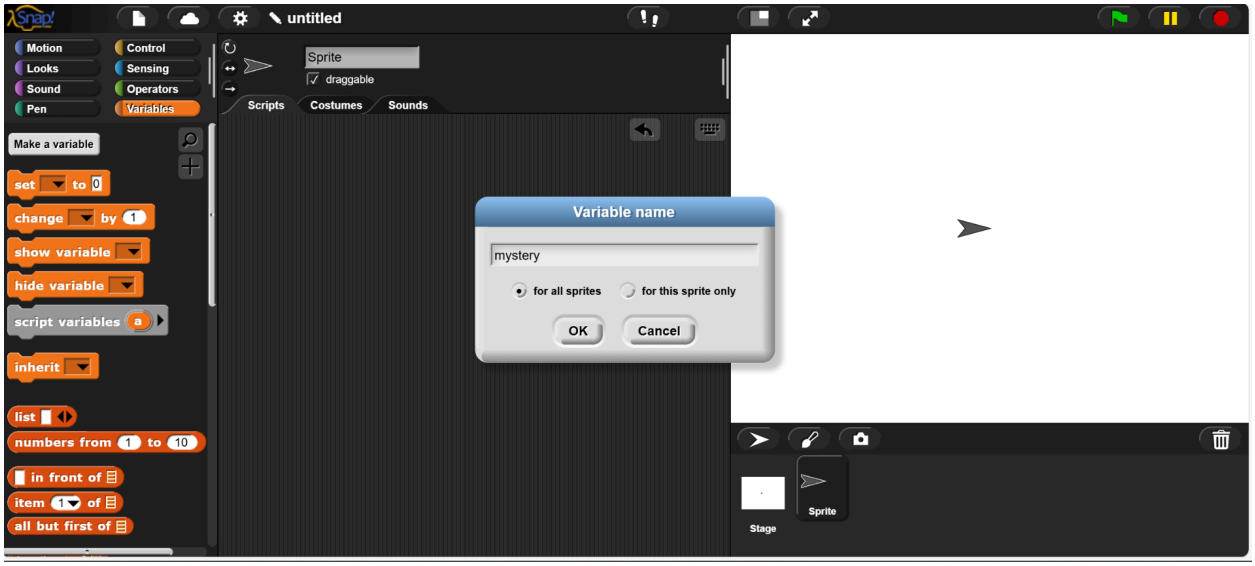
1. Return the opposite of **True** or **False**. Hmmm, how is this different from typing "True" or "False" (we will talk about this in lecture 2)?





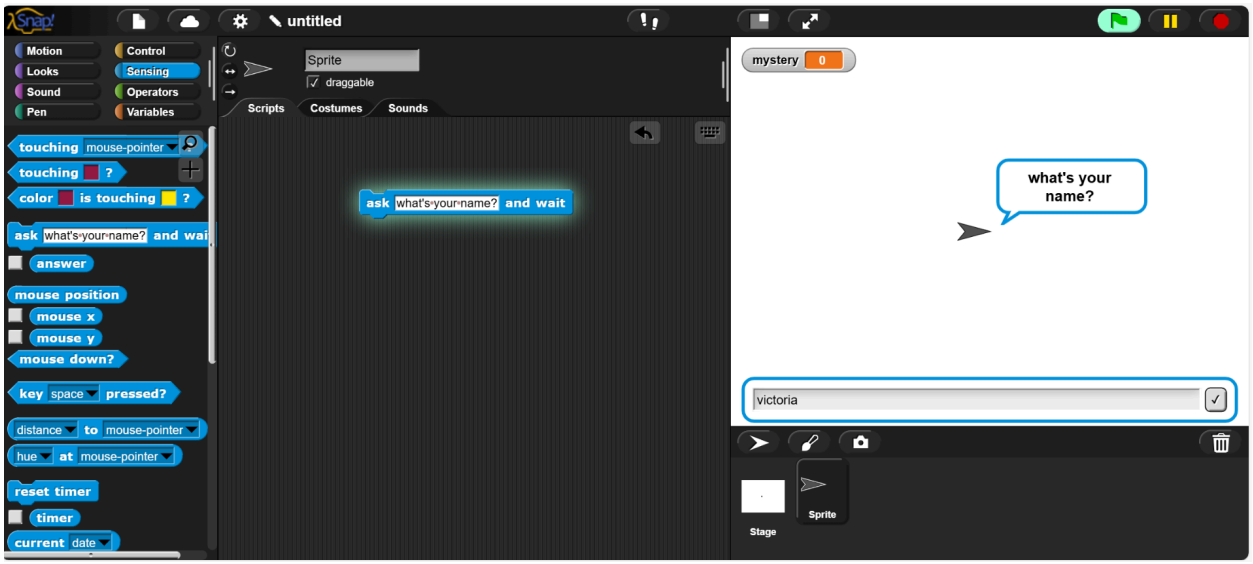
2. Make a variable called **mystery.** Check if the value of a variable **mystery** is a text or a numerical data-type. *Hint: there is a block that can check the data type.*

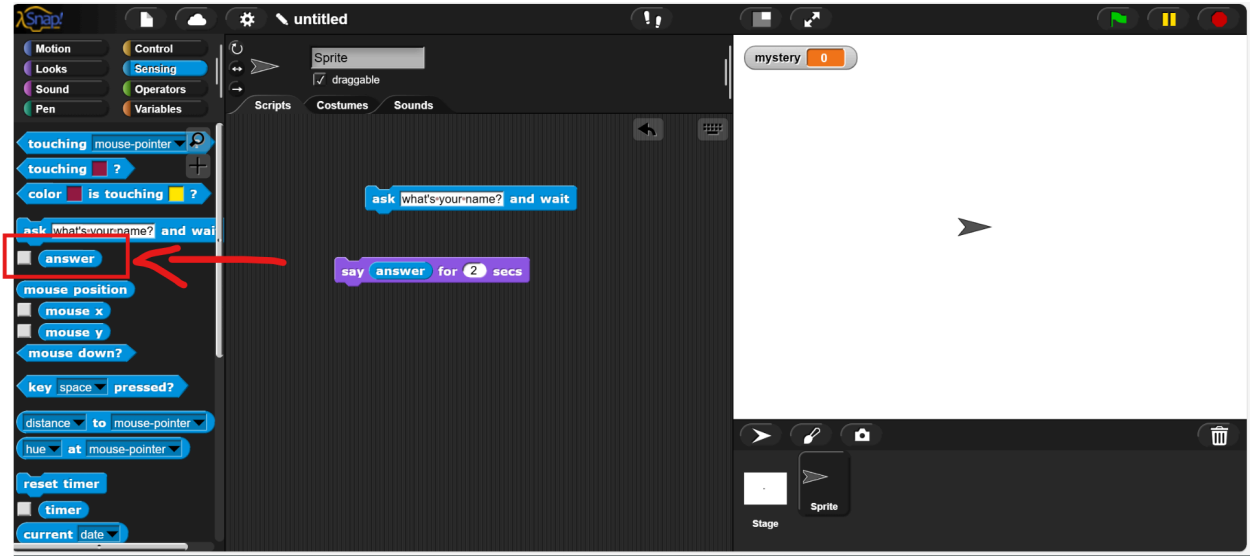






3. Ask a question in Snap*!* and automatically save the answer into a variable called **answer**. *Hint: Technically, there's a couple ways to do this, but there is a specific block that will do this for you, and it will automatically save the answer to a variable called **'answer'***





4. Hide a Sprite from the stage (without deleting the Sprite entirely.)



Note: You will need to use the “show” block to make it reappear

5. Make an extraordinarily annoying sound for 4 SECONDS!



Or you can import a sound for the “Sound” tab which is located under the tag icon

6. Now make it stop (please🥲)

