Announcements

- Assignment 3 due Sept. 23.
- Note: Exam 1 is Tuesday, Sept 28
  - Old exams are on the course website under resources tab
  - We will review for the exam on Sept 23
  - If you get accommodations for exams, you should have had your letter sent to Prof. Rodger, and she would have contacted you.

Q1. Built-in Functions

- Where can you use the cow getHeight function in this instruction?
  
  ![Image of a cow with a move command]

  - Over the 1.0 or the 2.0
  - getHeight’s value is of type decimal, so you can use it anywhere there is a decimal number

- Functions calculate a value of a certain type
  - Use the value wherever that type is in an instruction
Q2. getDistanceTo

• What happens when this executes?

• Moves to center of cow

Lots of built-in functions to use

Q3. Use math to adjust

• How do we stop poodle before the cow?
Q3. Use math to adjust

• How do we stop poodle before the cow?

  - Use math

```javascript
this.poodle.move(FORWARD), this.poodle.getDistanceTo(this.cow) = 1.0
```

- How does one add the math?
  • On down arrow beside number

```javascript
this.poodle.move(FORWARD), this.poodle.getDistanceTo(this.cow)
```

Q4. How do I get the flamingo to circle around the ostrich?

• Use turn with as seen by

```javascript
this.flamingo.turn(LEFT), asSeenBy this.ostrich.addDetail()
```

- Which direction do you pick to go forward?
  - The ostrich is to the flamingo’s left, so turn left

Q5. Properties

• What can you do with the paint property?

• What does painting an object with white paint do?

• What can you do with opacity property?

• What can you do with the vehicle property?
Q5. Properties

• What can you do with the paint property?
  – Paint an object that color
• What does painting an object with white paint do?
  – Means no color, the original colors show through
• What can you do with opacity property?
  – Make something see through or invisible
• What can you do with the vehicle property?
  – Make an object move when another object moves

Q6. More on properties

• Where does one change a property instantly when not running code?
• What instructions do you get to use with properties?
  – A set procedure
  – A get built-in function

Q7. Vehicle Property

• Consider
• What happens if the bluebird moves forward?
• What happens if the flamingo moves forward?
Q7. Vehicle Property

• Consider

![Image of bluebird and flamingo]

• What happens if the bluebird moves forward?
  – Only the bluebird moves.
• What happens if the flamingo moves forward?
  – The bluebird moves forward with it

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Q8. How does one create their own camera marker (not use the ones provided in Alice)?

• Use any object.
• Change its name to cameraViewSOMETHING
• Have it moveAndOrientTo camera
• Make it invisible

STOP HERE
What is the best object to use to make your own Camera marker

• Use a small quadruped
• It’s small and you will see its legs so you know it is on the camera.

Create Poodle as Camera Marker

• Rename the object to the camera view it will be

Poodle moveAndOrientTo camera

Then make the poodle invisible
Class Today

- Using properties, built-in functions and math
- Creating class procedures