I want to jump a random amount
Announcements

• Exam 1 is Sept 28
• Review on Thursday
• Assignment 3 due Sept 30
  – Best to complete before the exam!
• NO QZ for Thursday
  – QZ09 due Thursday Sept 30 – 10:15am

• Don’t get behind, be sure to check your grades on Sakai for Classwork
Q1 Constant Variable

• What is a constant variable?

• How do you create a constant variable in Alice?

• How do you use a constant variable?
Q1 Constant Variable

• What is a constant variable?
  – Storage location
  – Can only store one value there

• How do you create a constant variable in Alice?
  – Drag in variable tile
  – Be sure to select constant
  – Give it a type and initial value

• How do you use a constant variable?
  – Use it in place of anything of the same type
Q2 Random Numbers

• What is a random number?

  – Some number from a range of numbers
  – Don't know which number until it is generated

• In Alice, how does one get the random number in this instruction?

  – Put in a number first, then can select “random”

• Give examples of numbers in this range?

  – 0.5, 0.79, 1.3, 1.98
Q2 Random Numbers

• What is a random number?
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• In Alice, how does one get the random number in this instruction?
  – Put in a number first, then can select “random”

• Give examples of numbers in this range?
  – 0.5, 0.79, 1.3, 1.98
Q3 Random Integers

• How many different integers are a possibility with this statement?

```plaintext
constant WholeNumber = someNumber

nextRandomIntegerFromAUpToButExcludingB = 2, 5
```
Q3 Random Integers

• How many different integers are a possibility with this statement?

  – 3 possible numbers. They are: 2, 3, 4
  – Note this says …UpToButExcluding
Q4 Code with Random

• After this code runs, is the Panda in the same place it started in?
Q4 Code with Random

• After this code runs, is the Panda in the same place it started in?

• Probably not. Those are two DIFFERENT random numbers.
Q4 Code with Random

• To randomly move forward and then come back to the same place, generate one random number, store it in a variable, and use it twice!
Class Today

- Working with random numbers

Turn 1.5036797524083945 times