Constant Variable

- What is a constant variable?

- How do you create a constant variable in Alice?

- How do you use a constant variable?

Random Numbers

- What is a random number?

- In Alice, how does one get a random number in an instruction?

- Give examples of numbers in this range?

Random Integers

- How many different integers are a possibility with this statement?
If statements

• What types can you compare in an if statement?
  – Numbers
  – Directions
  – Paints
  – Text Strings
  – Objects
  – etc

Panda distanceTo

• What does this code do when it executes?

  ```
  if this_panda.getDistanceTo(this.bunny) > 2.0
  then
    this_panda.moveToward(this.bunny, 2.0)
  else
    this_panda.say("I'm here")
  add detail
  ```

Create line w/ Panda distanceTo

• How does one create **first line** of this code?

  ```
  if this_panda.getDistanceTo(this.bunny) > 2.0
  then
    this_panda.moveToward(this.bunny, 2.0)
  else
    this_panda.say("I'm here")
  add detail
  ```

Making decisions - If statement

• What happens when this code runs?

  ```
  if this_panda.getPaint() ≠ RED
  then
    this_panda.setPaint(RED)
  else
    this_panda.setPaint(BLUE)
  ```
What happens when this If executes?

Execute a copy of the if again?

Execute a third copy of the if?

Announcements

- Exam 1 is Oct 10
- Assignment 3 due in one week
  - Have you started yet?
- QZ9 due Sept 26 – 8:30am
Class Today

• Working with random numbers and making decisions