Function vs Procedure

- What is the difference between a function and a procedure?

- Procedure is something to do – turn, move, dance
- Function is a calculated value – a number, an object, a direction
- A function by itself is not very useful, a function has to be used in some way based on the type of value it calculates
Write a function called tallerHeight to compute the height of the tallest of two objects.

- What type of function should it be? Where do you create it?
- What is the return type?
- Need two parameters, what are their types?

Can write your own functions

Function for Scene OR Function for character

Create Scene function tallerHeight

- Inputs: two objects
- Output (return value): the height of the taller object
- Return type: decimalNumber

Use scene function if it involves multiple objects
Q1. What line of code do we have to put in every function?

• Return statement!
  – Must return the same type as the specified return value.

Q2. What is the code for tallerHeight?
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```
declare (DecimalNumber) function tallerHeight
    with parameters: SJointedModel, animal1, SJointedModel, animal2
```

Q3 Given a bear and a flamingo, how does one use the function tallerHeight?

- Have panda say what the taller height is of the bear and flamingo.
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Q4. Write a function called tallerObject to return the object who is taller of two objects.
- What type of function should it be? Where do you create it?
  - Scene function
- What is the return type?
- Need two parameters, what are their types?
  - SJointedModel

Q5 What is the code for tallerObject?
Q5 What is the code for tallerObject?

```javascript
declare (SJointedModel) function tallerObject
with parameters (SJointedModel) creature1, (SJointedModel) creature2
```

Q6 How do you get the taller of the bear and flamingo to say they are taller?

```javascript
this.tallerObject(creature1, creature2)
say  "I'm taller"
```
Q7 How do you write code for?

- The taller of the bear and flamingo to turn around once
- The bear to double in size (so it is taller)
- The taller of the bear and flamingo to turn around once.

Use tallerObject function in place of an object.

One more Question
What does this code do?

- The taller animal (flamingo) is stored in variable creature.
- Flamingo turns around, then **bear** gets bigger.
- Then Flamingo turns around again!

Class Today

- Jumping cat calculating how high and how far to jump, and other things...

- In the last line if we want the taller of the two to turn around, we MUST call the function again to recalculate the taller one, since the bear changed its height