Week 3 (due Week 4)

* What version of Python is being used in your version of Maya?

Maya python 2

* Convert the following MEL statements to Python:
* polyCylinder -h 3 -r 1 -sc 2 -ch 1;

import maya.cmds

may.cmds.polyCylinder(

h=3,

r=1,

sc=2,

ch=1);

* polySphere -r 3 -sx 8 -sy 8 -ch 1;

import maya.cmds

maya.cmds.polySphere(

r=3,

sx=8,

sy=8,

ch=1);

* polyTorus -r 1 -sr 0.5 -tw 5 -sx 20 -sy 20 -ch 1;

import maya.cmds

maya.cmds.polyTorus(

r=1,

sr=0.5,

sx=-20,

sy=20,

ch=1);

* polyCube -w 9 -h 9 -d 9 -sx 3 -sy 3 -sz 3 -ch 1;

import maya.cmds

maya.cmds.polyCube(

w=9,

h=9,

d=9,

sx=3,

sy=20,

ch=on);

* If you run this code:

the\_answer = “42”

What type of variable is the\_answer?

integer

What Python command can you run to confirm this?

* Most Maya commands have these three modes: create, query, and edit. Explain what each means.

Create allows the user to create an object

Query permits the user to request information about something the command has created

Edit allows user to edit something that user has created

* For the following list: my\_list = [2, 3, 7, 8, 9]
* What is the value of my\_list[1]?

3

* What is the value of my\_list[-1]?

9

* What is the value of my\_list[:-1]?

[2, 3, 7, 8]

* What is the value of my\_list[::-1]?

[9, 8, 7, 3, 2]

* What is the value of my\_list[1:-1]?

[3, 7, 8]

Reformat the print statement to use % string formatting: a = 5 b = 3 c = pow(a, b)

print(str(a) + “ to the “ + str(b) + “ power is “ + str(c))

“%s to the %s” %(a,b,c)

Write a short Python script that does the following:

Create a sphere

Import maya.cmds

maya.cmds.polyShere()

Create a locator

import maya.cmds

maya.cmds.spaceLocator()

Connect the locator Y-translate attribute to the sphere scale (Hint: use the connectAttr() command.)