Chapter 10-11 Study Guide – Ryan Neubauer

1. 1. An object knows stuff and does stuff
   2. Pieces of data that are stored within an object
   3. Functions that live within an object, objects are manipulated with these functions
   4. A class is a descriptor of a set of related objects. This class mechanism in Python is used as a “factory” to produce objects
2. 1. self.sides stores the number of sides for the die and self.value stores the value for the number rolled on the die
   2. \_\_init\_\_ will keep the number of sides of the die and sets the initial value of the roll to 1, roll will roll a random number on the die between the number 1 and the number of sides there is on the die, getValue will return the value that is rolled on the die, setValue replaces the previous value with a new value
   3. MSDie(6)
   4. MSDie(13)
   5. die1.roll()

die2.roll()

* 1. print(die1.getValue() + die2.getValue())

1. 1. self.xpos stores the x position of the projectile, self.ypos stores the y position of the projectile, self.xvel is the velocity of the projectile in the x direction, self.yvel is the velocity of the projectile in the y direction
   2. \_\_init\_\_ initializes and creates the projectile, update updates the position and the velocity of the projectile, getY returns the Y position of the projectile, getX returns the x position of the projectile, getInputs gathers all the inputs for the program and stores them in variables

my\_projectile = Projectile(45, 200, 5)

for i in range(20):

my\_projectile.update(0.1)

print(myprojectile.getY)

7.

a. theCalc = Calculator()

theCalc.run()

b. creates a window, creates buttons, activates the buttons

c. It is stored within a list with center coordinates

d. for b in self.buttons:

b.activate()

e. myLabel = mycalc.getButton()