1 Administrative Topics

- Nothing extra this week. The projects weren’t due last night, so I don’t have any to show you...

2 General debugging advice

- Expected number of arguments: When you are calling a method on an object, the object itself is hidden argument. So that means if you have a method such as Circle.getCenter(), there are 0 parameters between the parentheses. But the Circle object itself is a parameter. So if you write code like this:

  ```python
c = graphics.Circle( graphics.Point(100,100), 5 )
c.getCenter( 1 )
```

  Python will tell you that it expected 1 argument and got 2.

- What is wrong with

  ```python
  if random.random < 0.2:
  ```

  It is missing the parentheses, so the random function doesn’t execute.

  It should be

  ```python
  if random.random() < 0.2:
  ```
In the first case, we are comparing a pointer to the random function to the number 0.2. In the second case, we are comparing the output of the random function to the number 0.2. We want the second case.

3 Project 6 advice

In class, we write the functions necessary to make a simple scene with a car moving across it.

Remember that the animate function is called once per frame. Think of the frame parameter as an indication of time. Move the parts of your multi-shape object as you should at that time. E.g. maybe you have a car that moves to the right for awhile, then jumps up. Design it so you determine the frame numbers that involving right-ward movement and the frame numbers that involve upward movement.