Provide answers for the following:

1. Why do we multiply the value from step 5 above by 4? **Because this program only accounts for ¼ of the entire circle, when it’s multiplied by 4 the results encompass the entire circle.**
2. What do you observe in the output when running your program with parameters of increasing size? **The result becomes closer and closer to it’s approximation of Pi.**
3. If you run the program multiple times with the same parameter, does the output remain the same? Why or why not? **No, since this program uses a random number generator, the points will fall in different spots through each iteration of the program.**
4. Find a parameter that requires multiple seconds of run time. What is that parameter? How accurate is the estimated value of ? **The value ‘9999999’ took about 4 seconds to run, and the difference between it’s result and Pi was 0.000601260629598421**
5. Research one other use of Monte-Carlo methods. Record it in your exercise submission and be prepared to discuss it in class.