Nikita Persikov ASTE 404 Quiz 1 9/11/2021

- Q1) An interpreted language is processed line by line, which means syntax errors will not be found until the program is actually run. A compiled language goes through an extra compiling step, during which a program makes sure the code is written correctly (no syntax errors or others that show up on compile time), and is run afterwards.
- Q2) B, random number generator
- Q3) True
- Q4) A, a for loop
- Q5)

```
import numpy as np

a = [0,1,2,3]
b = [2,3,4,5]
c = np.zeros(4)
for i in range (1,4):
c[i] = a[i] + b[i]

Q6) True value: -0.919
2<sup>nd</sup> order approximation: -0.92
Percent error: 0.108%
```

(See work on attached page)

Q7) The matrix is singular since $2R_2 + R_1 = R_3$, so there is no solution.

(See next page for work and solution)