**Problem 9**

**Machine Independent:**

Machine independent random number generators can generate consistent numbers across different systems. When consistency with repetition of results are desired machine independent random generators should be used. Independent generators can also be used for comparing performance of various architectures in benchmarking. The same instructions will be followed without regard for the machine it is run on, allowing for times to be compared relatively.

**Machine Dependent:**

Different architectures will generate varying responses using dependent random number generators. An example of a machine dependent random number generator is the rand function. This will behave differently depending on the specifications of the computer—16 bit, 32 bit, 64 bit machines will generate different numbers. The machine dependent generators are tried and tested, they will work as intended and are easy to implement into a program. They can also take advantage of a computer’s specific architecture for more efficient performance.