

Name: _____ Date: _____ Class: _____

Random Numbers Post-Quiz **Answer Key**

1. If you were designing a robot vacuum cleaner, how would you make sure the robot cleans the entire kitchen floor?

One way to have a robot clean a floor efficiently is to tell it to go straight until it detects an obstacle, and then to turn a random amount and go in a different direction.

2. What is “computer software”?

A set of instructions that a computer can understand and follow. It directs the computer processor to perform tasks, such as opening a file, editing a text document or displaying a video.

3. What is a programming language?

A language designed to communicate instructions to a computer in the form of code. Programming languages enable computer programmers to create apps, games and other software.

4. What does “random” mean?

A random event is one that happens without conscious decision or pattern. Random events do not have “order.”

5. Give an example of a random relationship and a non-random relationship.

The relationship between a person’s weight and birth date is most likely random. The relationship between a person’s weight and clothing size is non-random.

6. What is a random number generator?

A random number generator is a computer program or calculation, or mechanical system or device, that produces random numbers, which are numbers that are not connected by any decision or intended pattern.

7. For what kind of mathematical/engineering problem might a random number generator be useful?

When you have no way of predicting what order would be best for processes to occur, a random number generator might be a good choice. Also, if you intentionally do not want a sequence of events to be predictable, the use of a random number generator would be appropriate.