1. **A Chance at Monte Carlo Activity —   
   Post-Quiz Assessment**
2. What is the significance of a geometrical constant? Give an example.

1. Quantities are often approximated in experimental science? True OR False (please circle)

1. Explain the idea of using simulated models for experiments:

1. Suppose you want to automatically assign numbers to baseball players by randomly drawing 9 numbers with replacement from a large range of numbers. Each team needs 9 numbers, and within a team, all the numbers must be unique. If the range is too small (say 1 through 30), then there is a large chance that you will get repeated numbers within a team.  
     
   Can you think of a way of testing to see what range of numbers almost never yields repeated player assignments?

1. The phrase “uniformly random” means:
   1. scattered everywhere
   2. occurring with equal probability anywhere
   3. scattered with equal spacing
2. A simulation is
   1. thinking of how an event will happen
   2. conducting an experiment
   3. artificially modeling and enacting an event
3. The number π is
   1. 3.141592......
   2. the naturally occurring constant relating any circle's radius to other geometrical features (circle length, area, etc.)
   3. cannot be written as a simple fraction
   4. all of the above

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| **How do you agree with these statements:** | **Strongly Agree** | **Agree** | **Don't Know** | **Disagree** | **Strongly Disagree** |
| Computers are useful for numerical calculation. |  |  |  |  |  |
| Any mathematical problem can be solved with the right formula. |  |  |  |  |  |
| We can use random sampling for insight into complex problems. |  |  |  |  |  |