Quick Questions 7   Understanding Probability

I.   List the three types of probability.

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II.   Place the letter of the appropriate definition, formula, or expression next to the concept it defines.

1. Probability		A. Each outcome has a known, equal chance of happening
2. Inferential statistics		B. Combines two or more simple events
3. Experiment		C. $1 - P(A)$
4. Outcome		D. Mutually exclusive
5. Event		E. The likelihood of something happening
6. Compound event		F. Cannot be divided
7. Simple event		G. $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$
8. Probability of A's complement		H. Empirical probability
9. A range for the probability of A		I. $P(A \text{ or } B) = P(A) + P(B)$
10. When A does not intersect B		J. Estimating population parameters using sample statistics
11. General rule of addition		K. Measurements resulting from an experiment
12. The complement of A		L. $\tilde{A}$
13. Another name for relative probability		M. A process resulting in one or more measurements
14. Special rule of addition		N. $0 \leq P(A) \leq 1$
15. Classical probability		O. Collection of outcomes

III. Identify these probability situations by placing in the space provided a C for Classical, E for Empirical, or S for Subjective.

1. Flipping a coin	
2. Drawing a red card from a deck of cards	
3. The chance of drivers stopping at a stop sign in the city of Boston	
4. Mary earning a grade of B or higher in Statistics I next term	
5. Darin Jones having a 10% increase in sales next year	
6. Salesperson A making a sale	
7. Drawing a red ball from a container of 3 red balls and 4 blue balls	
8. An advertising campaign increasing this December's sales	
9. School being called off in January because of inclement weather	
10. School being called off next Tuesday because of inclement weather	