

Chapter 14 Review

Directions: Complete each of the following sets of problems.

Let's say you have a deck of cards, what is the probability that the following will occur?

1. You draw a Queen:
2. You draw a red card:

Based on the Standard American English alphabet, what is the probability that of the following would occur by choosing a letter at random?

3. You choose a letter that is not H:
4. You choose letters that will make up the word LOVE:

Based on a six-sided dice, what is the probability that of the following would occur by rolling it?

5. You roll an even number:
6. You roll every number other than 3:
7. Let's say a coin is tossed 4 times. Create a sample set that demonstrates the 16 different results. You might find it helpful to create a tree diagram to find the possible results:

Based on the information from the sample space above in question #7, answer the following questions.

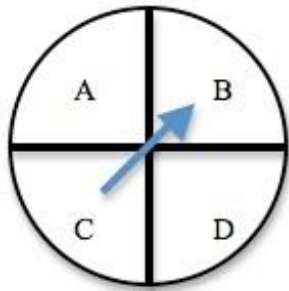
What is the probability that the four tosses will result in...

8. Only two tails?
9. No heads?
10. Two heads and two tails?
11. With more tails than heads?

Determine if the following samples are or are not mutually exclusive. If they are mutually exclusive write “mutually exclusive” if they aren’t mutually exclusive, then write “not mutually exclusive.”

- 12. Green; the grass:
- 13. Blue feathers; a person:
- 14. An herb; a plant:
- 15. A bird; an insect:
- 16. A car; a road:

A circle is divided into 4 parts: A, B, C, D



- 17. If the pointer is spun repeatedly, then how many different results could occur from 5 spins?
- 18. If the pointer is spun repeatedly, then how many different results could occur from 15 spins?

In how many different ways can each of the letters in the following words be arranged? Show your work and solutions.

- 19. LEARN →
- 20. LEARNS →

Find the number of permutations of the digits or letters below:

21. STEEPER:

22. 456456:

23. 929292

24. What is the probability that a random arrangement of 8 different numbers on a letter block will have them all in numerical order?

25. A hat, 4 coats, and a pair of boots are all arranged for sale. What is the probability that a random arrangement would have the hat first the pair of boots last and the four different coats in between?