Date _____

# Chapter 1 Review

Chapter 1

**1.** Define theoretical probability.

_____

_____

**2.** What is the probability of each of the following?

**a)** picking the 9 of clubs from a deck of cards _____ (fraction)

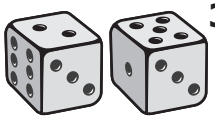
**b)** flipping heads with a coin _____ (decimal)

**c)** picking a diamond from a deck of cards _____ (percent)

**d)** rolling a 3 with 1 die _____ (fraction)

**e)** rolling an even number with 1 die _____ (decimal)

**f)** flipping heads or tails with a coin _____ (percent)



**3. a)** How many combinations can be obtained by rolling 2 dice? _____

**b)** List all of the combinations for rolling a 7 with 2 dice.

_____

**c)** Write the probability of rolling a 7 as a fraction of the total.

**4.** Define experimental probability.

_____

_____

**5.** Pick 10 cards from a deck of 52.

**a)** How many spades did you pick? _____

**b)** Write the number of spades you got as a fraction, a decimal, and a percent.

_____ = _____ = _____

fraction decimal percent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**6.** Complete the table.

| Fraction | Decimal | Percent |
|---|---|---|
| **a)** $\frac{1}{2}$ | | |
| **b)** $\frac{1}{10}$ | | |
| **c)** | 0.3 | |
| **d)** | 0.7 | |
| **e)** | | 90% |
| **f)** | | 95% |

**7. a)** Create and label a bar graph for the "perfect world" results for obtaining each suit when you cut a deck of cards 40 times.



**b)** The graph in part a) shows _____ probability.

**8.** A department store offers "scratch and win" tickets to its customers. The store claims that 25% of the tickets result in customers paying no taxes on purchases.

**a)** Write the probability of getting a winning ticket as a fraction. _____

**b)** If the store prints 10 000 tickets, how many winning tickets are there?

**c)** What are the odds of getting a winning ticket?