Name:_____

# 2 Day Probability Worksheet

## *An excuse to have an epic Field Trip to Clearwater

Is each event dependent or independent?

| | |
|---|---|
| One tossed coin landing heads and the next landing tails. | |
| Rolling two sixes in a row on a number cube | |
| Drawing a red tile from a bag and then drawing a green tile after replacing the first tile | |
| Drawing a blue tile from a bag and then drawing a red tile without replacing the first tile | |

**These problems refer to rolling a number cube, then spinning a spinner with the letters A-H on it. Find each probability. Show all work.**

P(rolling a 2, spinning an A):

P(Rolling an even number, spinning a vowel):

P(rolling a number less than 3, spinning a consonant):

**Tell whether the events are independent or dependent and then find each probability. There are 5 gray, 4 red, 5 white, 2 green, and 2 navy marbles in a hat. Show all work.**

P(red, not green) with replacement:

P(navy, white) without replacement:

P(gray, gray) with replacement:

P(gray, gray) without replacement:

**You roll a cube with the numbers 13, 16, 18, 20, 22, and 24 on it. You then spin a spinner which has 6 sections. The letters on the spinner are E, B, G, K, D, and H. Find each probability. Show all work.**

P(G, prime number)

P(20, K)

P(20, K)

Suppose you tossed a number cube (die) 8 times and recorded your results. The recorded data shows you tossed 2 fives.
(a.) What is the experimental probability of tossing a 5?

(b.) What is the theoretical probability of tossing a 5?

(c.) Compare the probabilities.

Determine if events A and B are independent:

$P(A) = \frac{2}{5}\ P(B) = \frac{1}{5}\ P(A \text{ and } B) = \frac{2}{25}$

$P(A) = \frac{2}{5}\ P(B) = \frac{1}{4}\ P(A \text{ and } B) = \frac{1}{25}$

$P(A) = \frac{9}{20}\ P(B) = \frac{1}{2}\ P(A|B) = \frac{27}{50}$

$P(\text{not } A) = \frac{3}{4}\ P(B) = \frac{3}{10}\ P(A \text{ and } B) = \frac{3}{40}$

Events A and B are independent. Find the missing probability.

$P(A) = \frac{1}{4}$ $P(B) = \frac{3}{5}$ $P(B|A) = ?$

$P(A) = \frac{3}{10}$ $P(B) = \frac{13}{20}$ $P(A \text{ and } B) = ?$

$P(A) = \frac{2}{5}$ $P(A \text{ and } B) = \frac{3}{10}$ $P(\text{not } B) = ?$