Unit 6 Probability
Day 10

Theoretical vs Experimental Activities

Warm Up Day 10

1. What is the probability of getting Tails first or last or both, in 3 tosses of a fair coin? (hint: draw a tree diagram)

HHT, HTT, THH, THT, TTH, TTT   so ¾ or 75%

2. A month is chosen from a year. What is the probability of choosing a month that starts with a J or has 30 days?

3/12 + 4/12 – 1/12 = ½ or 50%

3. In the Math Club, 7 of the 20 girls are freshman, and 4 of the 14 boys are freshman. What is the probability of randomly selecting a boy or a freshman to represent the Math Club at a statewide math contest?

$$\frac{14}{34} + \frac{11}{34} - \frac{4}{34} = \frac{21}{34}$$

4. Sandra has 8 pairs of winter gloves in a drawer. 3 pairs of the gloves are fleece, 4 pairs are leather and 1 pair is wool. If Sandra pulls out a pair of leather gloves, what's the probability the next glove she grabs will be wool?

$$\frac{2}{14} = \frac{1}{7} = 0.143$$

HW Answers
p. 16-17

1. 17/70 = 24.3%
2. 3/10 = 30%
3. 1/3 = 33.3%
4. 3/7 = 42.9%
5. 13/31 = 41.9%
6. 9/25 = 36%
7. 1700
8. 1/5 = 20%

9. Experimental because data was collected

10. Yes. The ad is saying gum helps your teeth by saying dentists recommend chewing it.

11. Answers will vary. Ex/ They could survey more dentists. 10 dentists is not a representative sample.

12.

Die	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

P(A) = 1/3   P(B) = 2/3

The game is not fair because the probability of each person winning is not equal.

Homework

Finish Packet p. 12 #1-2

Packet p. 18-21 odds

AND

Mastery Review Packet p. 1 and 2

Start Studying for the TEST!

Probability Lab

- **Each person must turn in the lab, but You will work with your partner on the lab.**

- **First find the theoretical probabilities for the dice and cards**

- **Then one partner rolls/draws and the other partner writes. Both record data on their lab sheet.**

- **Based on your empirical data, find the empirical probabilities and compare to the theoretical probabilities**

Homework

Finish Packet p. 12 #1-2
Packet p. 18-21 odds

Start Studying for the TEST!