

## Lesson 1.5 Comparing Experimental and Theoretical Probabilities

Compare the theoretical probability to the experimental probability. Express each probability as a fraction in simplest form.

7. Allison rolls a die numbered 1 through 6. The results are shown in the table below.

- a. What is the experimental probability of rolling a 6?  
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Result	Frequency
1	4
2	9
3	7
4	8
5	5
6	3

- b. What is the theoretical probability of rolling a 6? \_\_\_\_\_

- c. Which probability is greater? \_\_\_\_\_

How much greater? \_\_\_\_\_

- d. What is the experimental probability of rolling an even number? \_\_\_\_\_

- e. What is the theoretical probability of rolling an even number? \_\_\_\_\_

- f. Which probability is greater? \_\_\_\_\_ How much greater? \_\_\_\_\_

8. Allison continues to roll the die. The results are shown in the table below.

- a. What is the experimental probability of rolling a 6?  
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Result	Frequency
1	23
2	22
3	22
4	25
5	28
6	24

- b. What is the theoretical probability of rolling a 6? \_\_\_\_\_

- c. Which probability is greater? \_\_\_\_\_

How much greater? \_\_\_\_\_

- d. What is the experimental probability of rolling an even number? \_\_\_\_\_

- e. What is the theoretical probability of rolling an even number? \_\_\_\_\_

- f. Which probability is greater? \_\_\_\_\_ How much greater? \_\_\_\_\_