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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.

Result	Frequency
1	4
2	9
3	7
4	8
5	5
6	3

a. What is the experimental probability of rolling a 6?

_____

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.

Result	Frequency
1	23
2	22
3	22
4	25
5	28
6	24

a. What is the experimental probability of rolling a 6?

$\frac{1}{6}$

b. What is the theoretical probability of rolling a 6? $\frac{1}{6}$

c. Which probability is greater? same probability

How much greater? same probability

d. What is the experimental probability of rolling an even number? $\frac{71}{144}$

e. What is the theoretical probability of rolling an even number? $\frac{1}{2}$

f. Which probability is greater? theoretical How much greater? $\frac{1}{144}$