

Experimental vs. Theoretical - Probability Worksheet

Name: _____

Date: _____

Instructions:

1. Calculate the theoretical probability for each number on a standard D6 (1-6).
2. Roll the D6 100 times using <https://FreeOnlineDiceRoller.com> or physical dice.
3. Tally each result and compare your observed frequency to the expected frequency.
4. Answer the reflection questions at the bottom of the worksheet.

Face	Tally	Observed	Expected	Difference
1			16.67	
2			16.67	
3			16.67	
4			16.67	
5			16.67	
6			16.67	

Reflection Questions:

- Which number appeared most often? Least?
- How close were your results to the theoretical values?
- If you repeated this with 200 rolls, what do you expect would change?
- What does this tell you about probability and randomness?