

Experimental Probability

$$\text{Experimental Probability} = \frac{\text{Number of Favorable Outcomes}}{\text{Total Number of Trials}}$$

1. A pair of dice are rolled 200 times. An odd sum appeared 92 times. Based on the results, what is the experimental probability that the two dice will show a sum that is an odd number?

Number of Favorable Outcomes = 92

$$\frac{92 \div 4}{200 \div 4} = \frac{23}{50}$$

Total Number of Trials = 200

2. A coin was flipped 150 times. The tail side appeared 76 times. Based on the results, what is the experimental probability that the flipped coin will show a head?

Number of Favorable Outcomes = $150 - 76 = 74$

$$\frac{74 \div 2}{150 \div 2} = \frac{37}{75}$$

Total Number of Trials = 150

3. Two coins were flipped 12 times and results are shown below.

Trial	1	2	3	4	5	6	7	8	9	10	11	12
1st Coin	H	T	T	H	T	H	H	T	H	H	T	H
2nd Coin	T	H	H	H	H	T	T	H	H	T	H	T
	*	*	*	✓	+	*	*	*	✓	+	*	*

Based on the results, what is the experimental probability of each:

- a) A tail is flipped at least once.

Number of Favorable Outcomes = 10

Total Number of Trials = 12

$$\frac{10 \div 2}{12 \div 2} = \frac{5}{6}$$

- b) Both coins are the same.

Number of Favorable Outcomes = 2

Total Number of Trials = 12

$$\frac{2 \div 2}{12 \div 2} = \frac{1}{6}$$