

7th Grade
May 19, 2021

Today we will:

- Do probability problems on white boards
- Do probability problems on task cards

HOMEWORK:

Video notes

white board practice:

Want
total

$$P(5) = \frac{1}{20} \times \frac{5}{5} = \frac{5}{100}$$

$$= 0.05 = 5\%$$

$$P(1 \text{ or } 2) = \frac{2}{20} = \frac{1}{10}$$

$$= 0.10$$

$$= 10\%$$

$$P(\text{less than } 8) =$$

$$\frac{7}{20} = 35\%$$

$$P(4, 5, \text{ or } 6) = \frac{3}{20} = 15\%$$

Complement of

$$P(\text{NOT } 4, 5, 6) = \frac{17}{20} = 85\%$$

white board practice:



$$P(12) = 0\%.$$

impossible

$$P(2 \text{ or } 3) = 20\%.$$

unlikely

$$P(1-10) = 100\% \text{ or } 1$$

certain

The weather report says there is a 91% chance it will rain tomorrow. Should you get ready to use an umbrella? Explain.

1

3% of Americans are vegans. If you ask a random person whether he or she is a vegan, what is the probability that the person is not a vegan?

2

Jameson is taking a multiple-choice test and doesn't know an answer. He can answer A, B, C, D, or E. What is the probability that he will guess correctly?

3

Rebecca is on a game show and must choose between door A, B, and C. One of the doors opens to the grand prize. What is the probability that she will choose correctly?

4

Choose a random number between 1 and 20. What is the probability that the number is greater than 5 and less than 15?

5

Choose a random number between 1 and 25. What is the probability that it is an even number?

6

Cynthia rolled a pair of dice. What is the probability of getting an even number on both dice?

7

Cody rolled a pair of dice. What is the probability of getting the same number on both dice?

8

Mrs. Reeves has 20 identical boxes without labels. She knows that she has 2 box of pens, 10 boxes of paper, 2 box of crayons, and 6 boxes of glue. She opens one box. What is the probability it is glue? 9

Of the flowers in a field, 43% are yellow. The others are white. A bee randomly lands on a flower. Describe the complement of the bee landing on a yellow flower. Determine its probability. 10



What is Theoretical Probability?

Theoretical Probability is the likelihood that an event will happen. The probability of an event is the ratio of favorable outcomes to the number of possible outcomes.

$$P(\text{event}) = \frac{\text{favorable}}{\text{possible}} \quad \text{OR} \quad P(\text{event}) = \frac{\text{want}}{\text{total}}$$

The probability of an event is always between 0 and 1 or 0% and 100%

A probability can never be below 0% and probability can never be above 100%.

What is Experimental Probability?

Experimental Probability is the ratio of the _____ number of times an event occurs to the _____ number of trials

$$P(\text{event}) =$$

The frequency table below represents data collected from rolling a die fifty times.

Number	1	2	3	4	5	6
Frequency	7	5	10	9	11	8

- 1) What is the experimental probability of rolling a number greater than 3?
- 2) What is the theoretical probability?

A student rolled a pair of fair, six-sided, dice sixty times and recorded the sums in the frequency table below.

2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

- 1) What is the experimental probability of rolling a sum of 10?

- 4) What is the theoretical probability?

	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