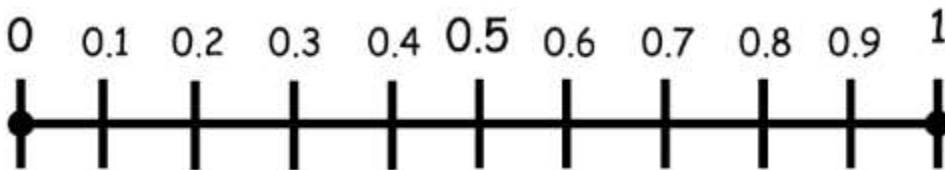


Quantitative Methods (Data Analysis)

02 Activity 2

Instructions

Predict whether the given scenario/computation shown below is certain, likely, even chance, unlikely, or impossible to occur. Use the provided probability scale to plot the given items. Express your answer in decimal. Show the complete solution. (50 points)



1. A jar contains marbles with the following colors: 3 red, 5 blue, and 2 green. What is the probability of choosing each color? (3 items x 10 points)

$$3 \text{ (red)} + 5 \text{ (blue)} + 2 \text{ (green)} = 10 \text{ marbles}$$

- Red: $3 \text{ marbles} / 10 \text{ marbles} = 0.3$
- Blue: $5 \text{ marbles} / 10 \text{ marbles} = 0.5$
- Green: $2 \text{ marbles} / 10 \text{ marbles} = 0.2$

The probability of choosing red is 0.3, blue is 0.5, and green is 0.2.

2. A flying pig (10 points)

The probability of a pig flying is 0.

3. The probability of choosing a diamond card from a standard pack of cards is 0.25. What is the probability of choosing any other suit? (10 points)

- Probability of choosing any other suit = $1 - \text{Probability of choosing a diamond}$
- Probability of choosing any other suit = $1 - 0.25$
- Probability of choosing any other suit = 0.75

The probability of choosing any other suit (hearts, clubs, or spades) is 0.75.