CONSIDER THE EXPERIMENT OF TOSSING A COIN TWICE

1. List the possible outcomes

Possible outcomes of tossing a coin twice are:

{HH, HT, TH, TT}

where H represents heads and T represents tails.

2. Define a random variable that represents the number of heads

We can define a random variable X as the number of heads obtained in two tosses of a coin.

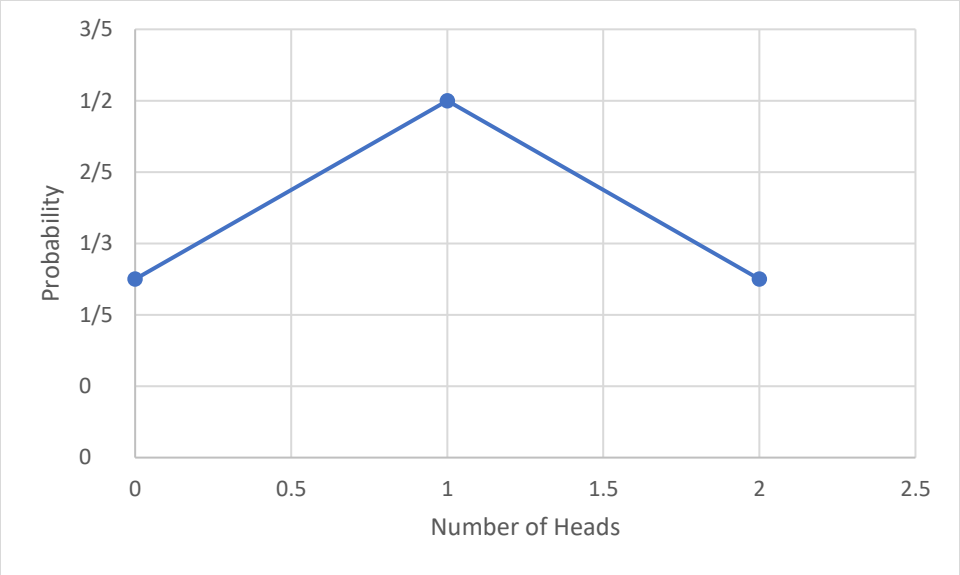
3. Is this random variable discrete of continuous? What values would the random variable assume?

This random variable X is a discrete random variable. It can take on values of 0, 1, or 2, representing the number of heads obtained.

4. Construct a probability distribution for this experiment in tabular form

Number of Heads (X)	Probability (P(X))
0	1/4
1	1/2
2	1/4

5. Construct a probability distribution for this experiment in graphical form


3/5
1/2
2/5
1/3
1/5
0
0
Probability
0
0.5
1
1.5
2
2.5
Number of Heads