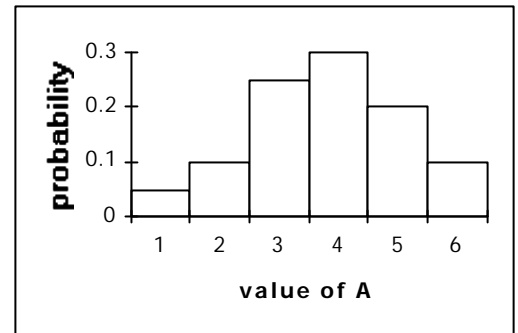


PROBLEMS FOR DISCRETE PROBABILITY DISTRIBUTIONS

- Consider the graph of the probability distribution and check that the probabilities add up to 1. Use the graph to find $P(A = 3 \text{ or } 4)$ and $P(A > 3)$.
- Two six-faced dice are thrown. Let D be the difference between the two values. D takes the values 0, 1, 2, 3, 4, 5.

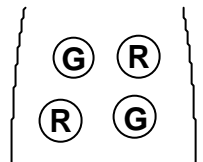


Perform this experiment 25 times, record your results in the following table and draw a graph to show your experimental probability distribution.

value of D	tally	frequency	relative frequency or experimental probability
0			
1			
2			
3			
4			
5			
		25	1

Use a grid to determine the theoretical probability distribution of D and draw the graph of the probability distribution. Compare the shapes of the two graphs.

- A bag contains 2 green and 2 red balls. A ball is removed at random from the bag and not replaced. This is repeated until a red ball appears. Let G be the number of green balls removed before a red ball appears. G takes the values 0, 1 and 2.



Perform this experiment 25 times, record your results in the following table and draw a graph to show your experimental probability distribution.

value of G	tally	frequency	relative frequency or experimental probability
0			
1			
2			
		25	1

Use a tree diagram to determine the theoretical probability distribution of G and draw the graph of the probability distribution. Compare the shapes of the two graphs.