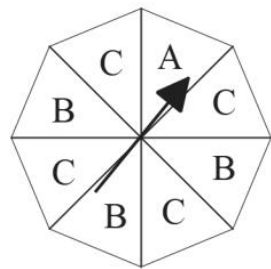


Question 1

(6 marks)

Ashley and Xavier are playing a board game that requires them to use the spinner shown below.



The player spins the arrowhead and the result is where the arrowhead is pointing when it stops moving. The above diagram is showing a result of A.

(a) If the spinner is spun three times, what is the probability that B is never a result? (1 mark)

Let the random variable X be defined as the number of times B is the result when the spinner is spun three times.

(b) Complete the table below showing the probability distribution of X . (3 marks)

x	0	1	2	3
$P(X = x)$				

(c) Determine the mean and variance of the above distribution. (2 marks)