

Assignment Probability

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probability

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1 Problems

1. Q:11,16.4,4

1.1 Problem1

Q1: In a certain lottery 10,000 tickets are sold and ten equal prizes are awarded. What is the probability of not getting a prize if you buy (a) one ticket (b) two tickets (c) 10 tickets ?

solution:

Given,

Total no of tickets sold = $S = 10000$

Number of prizes awarded = 10

Number of tickets not awarded = $P = 9990$

let $X = 0 \leq X \leq S$

$$P(x) = \begin{cases} 0 & X < 1 \\ \frac{{}^PC_x}{S} & 1 \leq X \leq P \\ 1 & P > X \leq S \end{cases}$$