Assignment 4

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Download all python codes from

https://github.com/ayush−2321/AI1103/tree/main/assignment%203

and latex-tikz codes from

https://github.com/ayush−2321/AI1103/tree/main/assignment%203

PROBLEM 1.1 (GATE ME 2002)

Two die are thrown. What is the probability that sum of numbers on the two dice is eight

(a) $\frac{5}{36}$

(b) $\frac{5}{18}$

(c) $\frac{1}{4}$

(d) $\frac{1}{3}$

1 SOLUTION

Let $X \in \{2, 12\}$ be a discrete random variable which denotes the sum obtained on two dice.

$$\text{Required probability} = \Pr(X = 8)$$

result on die 1	Result on die 2
6	2
5	3
4	4
3	5
2	6

TABLE 4: All possible cases

$$\text{So, from table, } \Pr(X = 8) = \frac{5}{36}$$