भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Probability Assignment

T.Sai Raghavendra(FWC22087)

CONTENTS

I. PROBLEM1

A. *Question*

A die has two faces each with number '1', three faces each with number '2' and one face with number '3'. If die is rolled once, determine
(i) P(2)
(ii) P(1 or 3)
(iii) P(not 3)

B. *Solution*

Total number of faces = 6

i) Number faces with number '2' = 3

$$P(2) = \frac{3}{6} = \frac{1}{2}$$

ii) P(1 + 3) = P(1) + P(3) - P(13)

Number faces with number '1' = 2

$$P(1) = \frac{2}{6}$$

Number faces with number '3' = 1

$$P(3) = \frac{1}{6}$$

$$P(13) = 0$$

So, $P(1 + 3) = \frac{2}{6} + \frac{1}{6} - 0 = \frac{3}{6} = \frac{1}{2}$

iii) P(3') = 1 - P(3)

Number faces with number '3' = 1

$$P(3) = \frac{1}{6}$$

$$P(3') = 1 - \frac{1}{6} = \frac{5}{6}$$