

Assignment 2

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Download all python codes from

<https://github.com/Yagna20/AI1103/blob/main/Assignment%202/assignment%202.py>

and latex-tikz codes from

<https://github.com/Yagna20/AI1103/blob/main/Assignment%202/assignment%202.tex>

1 PROBLEM Q.47

A fair dice is tossed two times. The probability that the second toss results in a value that is higher than the first toss is

2 SOLUTION

Let X_1 and X_2 represent the first toss and second toss respectively. Total no. of pairs of tosses is

$$6 * 6 = 36$$

and total no. of outcomes where second toss is greater than first toss is

$$\binom{6}{2} = 15$$

That means,

$$\Pr(X = 2 > X = 1) = \frac{15}{36} = \frac{5}{12}$$