

Assignment 4

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Python code link : <https://github.com/ParvezAlam123/Assignment-4/tree/main/code>

$X = 0, \text{ for } X_1 = 3$

$X = -2, \text{ for } X_1 = 2$

$X = -4, \text{ for } X_1 = 1$

$X = -6, \text{ for } X_1 = 0$

$X \in \{6, 4, 2, 0, -2, -4, -6\}$

1 Prob. Sec 3, 7 :

Let X represents the difference between the number of the heads and the number of the tails obtained when a coin is tossed 6 times. What are possible value of X ?

Solution: Let X_1 is a binomial random variable

$X_1 \in \{0, 1, 2, 3, 4, 5, 6\}$

Possible values of X are

$X=6, \text{ for } X_1 = 6$

$X = 4, \text{ for } X_1 = 5$

$X = 2, \text{ for } X_1 = 4$

