

Assignment 1

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Download all latex-tikz codes from

<https://github.com/prashanth-s/AI1103/tree/main/Assignment1/assignment1.tex>

1 PROBLEM

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

2 SOLUTION

Coin is tossed 6 times. There are several cases. Let H and T be the number of heads and the number of tails obtained in each case.
 $\Rightarrow X = H - T$ in each case.

Possible cases			
S.No	Number of heads(H)	Number of Tails(T)	X
1	6	0	6
2	5	1	4
3	4	2	2
4	3	3	0
5	2	4	-2
6	1	5	-4
7	0	6	-6

Since these are all the possible cases, X can take values from $\{6, 4, 2, 0, -2, -4, -6\}$.