Assignment 1
Ncert Exampler

Rajeev Kumar

EE22BTECH11042

I. QUESTION 10.13.2.10

I toss three coins together. The possible outcomes are no heads, 1 heads, 2 heads and 3 heads. So, Isay that probability of no heads is 1/4. What's wrong with this conclusion

Solution:

Given, three coins are tossed together.

Total outcomes $T(E) = 2^3 = 8$

(T, T, T), (T, T, H), (T, H, T), (T, H, H), (H, T, T), (H, T, H), (H, H, T) and (H, H, H) are the favourable outcomes for this event.

$\therefore \Pr(getting\ no\ heads) = \frac{1}{8}$

Hence, the given statement is wrong $\left(\because \frac{1}{8} \neq \frac{1}{4} \right)$