# Assignment 4

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### I. PROBLEM-CBSE-9TH Q)EXAMPLE 2

Q)Two coins are tossed simultaneously 500 times, and we get

Two heads: 105 times
One head: 275 times

 $No\ head: 120\ times$ 

Find the probability of occurrence of each of these events.

#### II. SOLUTION

Let us denote the event of getting two heads, one head and no head by  $E_1$ ,  $E_2$  and  $E_3$  respectively. So,

$$P(E_1) = \frac{105}{500} = 0.21 \tag{1}$$

$$P(E_2) = \frac{275}{500} = 0.55 \tag{2}$$

$$P(E_3) = \frac{120}{500} = 0.24 \tag{3}$$

Observe that  $P(E_1) + P(E_2) + P(E_3) = 1$ . Also  $E_1$ ,  $E_2$  and  $E_3$  cover all the outcomes of a trial.