



Exercise 15A

Question 3:

Total number of trials=200

Number of times 3 heads appeared=39

Number of times 2 heads appeared = 58

Number of times 1 head appeared =67

Number of times 0 head appeared=36

The random toss of 3 coins , Let E_1 , E_2 , E_3 and E_4 be the events of getting 3 heads , 1 head and 0 head and 2 heads respectively . Then;

$$\begin{aligned}
 \text{(i) } P(\text{getting 3 heads}) &= P(E_1) = \\
 &= \frac{\text{numbers of times 3 head appeared}}{\text{total number of trials}} \\
 &= \frac{39}{200} \\
 &= 0.195
 \end{aligned}$$

$$\begin{aligned}
 \text{(ii) } P(\text{getting 1 head}) &= P(E_2) = \\
 &= \frac{\text{numbers of times 1 head appeared}}{\text{total number of trials}} \\
 &= \frac{67}{200} \\
 &= 0.335
 \end{aligned}$$

$$\begin{aligned}
 \text{(iii) } P(\text{getting 0 head}) &= P(E_3) = \\
 &= \frac{\text{numbers of times 0 head appeared}}{\text{total number of trials}} \\
 &= \frac{36}{200} \\
 &= 0.18
 \end{aligned}$$

$$\begin{aligned}
 \text{(iii) } P(\text{getting 2 heads}) &= P(E_4) = \\
 &= \frac{\text{numbers of times 2 head appeared}}{\text{total number of trials}} \\
 &= \frac{58}{200} \\
 &= 0.29
 \end{aligned}$$

***** END *****