Answer on Question #48295 – Math - Statistics and Probability

Over the last 10 years, the average number of deaths due to accidents involving a certain commercial airline has been about 30 per year. Over the same period, the average number of passengers of the airline has been more than 4.8 million per year. What is the probability of dying on a particular flight?

Solution

The average number of deaths due to accidents involving a certain commercial airline has been about $n = 30$ per year. The average number of passengers of the airline has been more than $N = 4.8\,million = 4.8 \cdot 10^6$ per year. The probability of dying on a particular flight is

$$P = \frac{n}{N} = \frac{30}{4.8 \cdot 10^6} = 6.25 \cdot 10^{-6}.$$

Answer: $\mathbf{6.25 \cdot 10^{-6}}$.