

**Answer on Question 49073, Math, Statistics and Probability**

Past experience shows that the probability that a sales person will exceed target sales is 74%, given that they exceeded in the previous year. Suppose the probability of a salesperson exceeding target sales within a given year is 53%. What is the probability that the salesperson will exceed target sales two years in a row?

Solution

Let us use general multiplication rule for the probability of unknown event:

$$p = p_1 \cdot p_2 = 0.53 \cdot 0.74 = 0.3922$$

Hence, the probability is 0.3922 or 39.322%