

**Answer on Question #86025 – Math – Statistics and Probability
Question**

A binomial probability experiment is conducted with the given parameters. Compute the probability of x successes in the n independent trials of the experiment.

$n=10, p=0.85, x=9.$

Solution

First of all, we will write the formula for binomial probability:

$$P(x) = \frac{n!}{x!(n-x)!} p^x (1-p)^{n-x}.$$

From this formula we can find $P(9)$:

$$P(9) = \frac{10!}{9!(10-9)!} 0.85^9 (1-0.85)^{10-9} = 10 \cdot 0.85^9 \cdot 0.15 = 10 \cdot 0.23 \cdot 0.15 \approx 0.35.$$

Answer: 0.35.