

Answer on Question #83133 — 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. $n=9$ $p=0.5$ $x < 3$.

Solution

$$P(x < 3) = P(x=0) + P(x=1) + P(x=2) = 1 * p^0 * (1 - p)^9 + 9 * p^1 * (1 - p)^8 + 36 * p^2 * (1 - p)^7 = 0.0898, \text{ where } p = 0.5.$$

Answer: 0.0898.