Answer on Question #85413 – Math – Statistics and Probability

Question

The probability that a patient recovers from a rare disease is 0.6. Calculate the probability that out of 5 patients suffering from this disease, at least two would recover.

Solution

It is Binomial distribution with $p = 0.6,\ n = 5$.

$P(X \geq 2) = 1 - P(X = 0) - P(X = 1) = 1 - C_5^0 p^0 (1-p)^5 - C_5^1 p^1 (1-p)^4 =$

$= 1 - 0.0102 - 0.0768 = 0.9130.$

Answer: 0.9130.