

## Answer on Question #70970 – Math – Statistics and Probability

### Question

There are 50 misprints in a book which has 250 pages.

- a) What is the averages of misprints in one page?
- b) Find the probability that randomly selected page has no misprints?
- c) What is the probability that in randomly selected page there is at least one misprint?

### Solution

a)  $\mu = \frac{50}{250} = 0.2.$

- b) Poisson probability with  $\mu = 0.2$ :

$$P(X = 0) = e^{-0.2} \frac{0.2^0}{0!} = 0.8187.$$

- c)  $P(X \geq 1) = 1 - P(X = 0) = 1 - 0.8187 = 0.1813.$

**Answer: a) 0.2; b) 0.8187; c) 0.1813.**