PS

IT24103497

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1.

i. What is the distribution of X?

```
> #i.
> #Binomial Distribution
> #In here,Random variable X has binomial distribution with n = 50 and p = 0.85
```

ii. What is the probability that at least 47 students passed the test?

```
> #ii.
>  1- pbinom(46,50,0.85,lower.tail = TRUE)
[1] 0.04604658
```

2.

i. What is the random variable (X) for the problem?

```
>  #i.
>  #The number of customer phone calls per hour
> |
```

ii. What is the distribution of X?

```
>  #ii.
>  #Poisson Distribution
>  #In here random variable X has poisson distribution with lamda = 12
```

iii. What is the probability that exactly 15 calls are received in an hour?

```
>  #iii.
>  dpois(15,12)
[1] 0.07239112
```