Lab Sheet 06

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1.

```
> setwd("C:\\SLIIT\\IT2120 PS\\Lab 6")
>
>
> # 1.
> # i. What is the distribution of X?
> # binomial distribution
>
> # ii. What is the probability that at least 47 students passed the test?
> # P(X >= 47) = 1 - P(X <= 46)
>
> 1 - pbinom(46, 50, 0.85)
[1] 0.04604658
>
> #or
>
> pbinom(46, 50, 0.85, lower.tail = FALSE)
[1] 0.04604658
```

2.

```
> #2. A call center receives an average of 12 customer calls per hour.
>
> #i. What is the random variable (X) for the problem?
> # X represents the number of customer calls received in an hour.
>
>
> #ii. What is the distribution of X?
> #Poisson Distribution.
>
> #iii. What is the probability that exactly 15 calls are received in an hour?
> dpois(15, 12)
[1] 0.07239112
```