IT24104101

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PS Labsheet 06

Exercise

Question 01

```
#Question 01
#part 1

n <- 50
p <- 0.85

# Probability at least 47 pass
prob <- sum(dbinom(47:50, size=n, prob=p))
prob

#part 2
prob <- 1 - pbinom(46, size=n, prob=p)
prob

17:1  (Top Level)
```

```
> #Question 01
> #part 1
>
> n <- 50
> p <- 0.85
>
> # Probability at least 47 pass
> prob <- sum(dbinom(47:50, size=n, prob=p))
> prob
[1] 0.04604658
>
> #part 2
> prob <- 1 - pbinom(46, size=n, prob=p)
> prob
[1] 0.04604658
>
```

Question 02

```
18  #Question 02
19  # part 1
20  # Random variable X = number of customer calls received in one hour
21
22  #part 2
23  # X follows a Poisson distribution with lambda = 12
24  lambda <- 12
25
26  #part 3
27  # Probability that exactly 15 calls are received in an hour
28  prob_q2 <- dpois(15, lambda)
29  print(prob_q2)
```

28:29 (Top Level)

```
> #Question 02
> # part 1
> # Random variable X = number of customer calls received in one hour
>
> #part 2
> # X follows a Poisson distribution with lambda = 12
> lambda <- 12
>
> #part 3
> # Probability that exactly 15 calls are received in an hour
> prob_q2 <- dpois(15, lambda)
> print(prob_q2)
[1] 0.07239112
>
```