

# IT2120 - Probability and Statistics

## Lab Sheet 06

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### Exercise

01) i)

```
1 setwd("C:\\Users\\USER\\Desktop\\IT246108")
2
3 #Question 1
4
5 #Part 1
6 #Binomial Distribution
7 n <- 50
8 p <- 0.85
```

```
> n <- 50
> p <- 0.85
```

```
> setwd("C:\\Users\\USER\\Desktop\\IT246108")
```

```
10 #Part 2
11 #P(X >= 47) = 1-P(X <= 46)
12 1 - pbinom(46, n, p, lower.tail = TRUE)
13 #pbinom(46, n, p, lower.tail = FALSE)
```

```
> 1 - pbinom(46, n, p, lower.tail = TRUE)
[1] 0.04604658
```

ii)

```

16 #Question 2
17
18 #Part 1
19 #Number of calls a call center recieves per hour

```

02) i)

```

21 #Part 2
22 #Poisson Distribution
23 #Lambda = 12

```

ii)

```

25 #Part 3
26 lambda <- 12
27 dpois(15, lambda)
--







```

iii)

```

> lambda <- 12
> dpois(15, lambda)
[1] 0.07239112

```

Environment	History	Connections	Tutorial
   Import Dataset ▾  202 MiB ▾ 			
R ▾    Global Environment ▾			
Values			
lambda		12	
n		50	
p		0.85	