

Faculty of Computing

Year 2 Semester 1 (2025)

IT2120 - Probability and Statistics Lab Sheet 07

⚠ Breakpoints cannot be set until the file is saved.

```
1 getwd()
2 setwd("C:\\Users\\ASUS TUF\\Desktop\\IT24102614")
3 |
4 #i
5 lower <- 0
6 upper <- 40
7 a <- 10
8 b <- 25
9 prob1 <- (b - a) / (upper - lower)
10 prob1
11
12 #ii
13 lambda <- 1/3
14 prob2 <- pexp(2, rate = lambda)
15 prob2
16
17 #3i)
18 mean <- 100
19 sd <- 15
20
21 prob3_i <- 1 - pnorm(130, mean, sd)
22 prob3_i
23 #ii
24 iq_95 <- qnorm(0.95, mean, sd)
25 iq_95
```

```
> getwd()
[1] "C:/Users/ASUS TUF/Documents"
> setwd("C:\\Users\\ASUS TUF\\Desktop\\IT24102614")
> lower <- 0
> upper <- 40
> a <- 10
> b <- 25
> prob1 <- (b - a) / (upper - lower)
> prob1
[1] 0.375
> lambda <- 1/3
> prob2 <- pexp(2, rate = lambda)
> prob2
[1] 0.4865829
> mean <- 100
> sd <- 15
>
> prob3_i <- 1 - pnorm(130, mean, sd)
> prob3_i
[1] 0.02275013
> #ii
> iq_95 <- qnorm(0.95, mean, sd)
> iq_95
[1] 124.6728
> |
```