

IT24102544

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Lab 07

### Exercise

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```
getwd()
setwd("C:\\Users\\User\\Desktop\\IT24102544")

#i
lower <- 0
upper <- 40
a <- 10
b <- 25
prob1 <- (b - a) / (upper - lower)
prob1

#ii
lambda <- 1/3
prob2 <- pexp(2, rate = lambda)
prob2

#3i)
mean <- 100
sd <- 15

prob3_i <- 1 - pnorm(130, mean, sd)
prob3_i
#ii
iq_95 <- qnorm(0.95, mean, sd)
iq_95
```

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```
> getwd()
[1] "C:/Users/User/Desktop"
> setwd("C:\\Users\\User\\Desktop\\IT24102544")
>
> #i
> lower <- 0
> upper <- 40
> a <- 10
> b <- 25
> prob1 <- (b - a) / (upper - lower)
> prob1
[1] 0.375
>
> #ii
> lambda <- 1/3
> prob2 <- pexp(2, rate = lambda)
> prob2
[1] 0.4865829
>
> #3i)
> 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
```

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