

IT24103927

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Probability and Statistics - IT2120

Lab Sheet 7

Exercise

1.

```
setwd("C:\\Users\\HSAND\\OneDrive\\Desktop\\IT24103927 [Lab7 PS]")  
  
#1  
punif(25, min=0, max=40, lower.tail=TRUE) - punif(10, min=0, max=40, lower.tail=TRUE)  
  
> setwd("C:\\Users\\HSAND\\OneDrive\\Desktop\\IT24103927 [Lab7 PS]")  
> #1  
> punif(25, min=0, max=40, lower.tail=TRUE) - punif(10, min=0, max=40, lower.tail=TRUE)  
[1] 0.375
```

2.

```
#2  
pexp(2, rate=1/3, lower.tail=TRUE)  
  
> #2  
> pexp(2, rate=1/3, lower.tail=TRUE)  
[1] 0.4865829
```

3.

(i)

```
#3  
# (i)  
pnorm(130, mean=100, sd=15, lower.tail=FALSE)  
  
> #3  
> # (i)  
> pnorm(130, mean=100, sd=15, lower.tail=FALSE)  
[1] 0.02275013
```

(ii)

```
#(ii)
qnorm(0.95, mean=100, sd=15, lower.tail=TRUE)
|

> #(ii)
> qnorm(0.95, mean=100, sd=15, lower.tail=TRUE)
[1] 124.6728
```