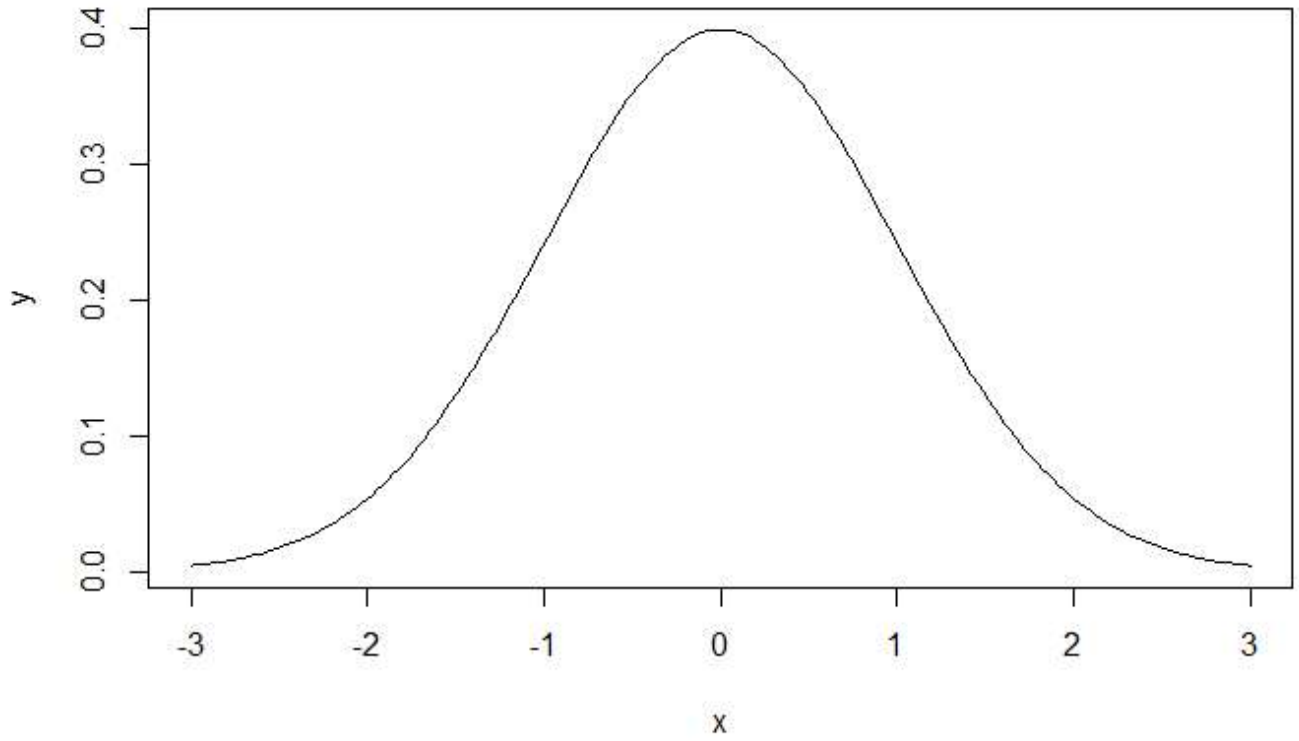
Statistical Inference Theory - Lab 4

Code

CB.SC.I5DAS20032



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```
qnorm(0.95)
```

```
[1] 1.644854
```

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```
qnorm(0.975)
```

```
[1] 1.959964
```

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```
library(MASS)

head(survey)
```

	Sex <fctr>	Wr.Hnd <dbl>	NW.Hnd <dbl>	W.Hnd <fctr>	Fold <fctr>	Pulse <int>	Clap <fctr>	Exer <fctr>	Smoke <fctr>
1	Female	18.5	18.0	Right	R on L	92	Left	Some	Never
2	Male	19.5	20.5	Left	R on L	104	Left	None	Regul

	Sex <fctr>	Wr.Hnd <dbl>	NW.Hnd <dbl>	W.Hnd <fctr>	Fold <fctr>	Pulse <int>	Clap <fctr>	Exer <fctr>	Smoke <fctr>
3	Male	18.0	13.3	Right	L on R	87	Neither	None	Occas
4	Male	18.8	18.9	Right	R on L	*NA*	Neither	None	Never
5	Male	20.0	20.0	Right	Neither	35	Right	Some	Never
6	Female	18.0	17.7	Right	L on R	64	Right	Some	Never

6 rows | 1-10 of 12 columns

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```
height.survey = survey$Height

mean(height.survey, na.rm = TRUE)
```

```
[1] 172.3809
```

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```
n = length(height.survey)

sigma = 9.48

sem = sigma/sqrt(n)

sem
```

```
[1] 0.6157922
```

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```
qnorm(0.959964)
```

```
[1] 1.750268
```

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```
E = qnorm(0.975)*sem

xbar = mean(height.survey, na.rm = TRUE)
```

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```
xbar + c(-E, E)
```

```
[1] 171.1739 173.5878
```