

3ª Lista de Exercícios

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Respostas

1. a) 0.9494974
- b) 0
- c) 0.9494974
- d) 0.0505026
- e) 0.8989948
- f) 0.0505026
- g) -1.6448536
- h) 1.6448536
- i)

```
a <- pnorm(1.64)
a
```

```
## [1] 0.9494974
```

```
b <- pnorm(1.64) - pnorm(1.64)
b
```

```
## [1] 0
```

```
c <- pnorm(1.64)
c
```

```
## [1] 0.9494974
```

```
d <- pnorm(-1.64)
d
```

```
## [1] 0.05050258
```

```
e <- pnorm(1.64) - pnorm(-1.64)
e
```

```
## [1] 0.8989948
```

```
f <- 1 - pnorm(1.64)
f
```

```
## [1] 0.05050258
```

```
g <- qnorm(0.05)
g
```

```
## [1] -1.644854
```

```
h <- qnorm(1 - 0.05)
h
```

```
## [1] 1.644854
```

2. a) 0.3744842
b) 0
c) 0.2802927
d) 0.0545274
e) 0.0545274
f) 1.0948349
g) 58.8786593
h) 141.1213407
i) 51.0009004
j)

```
a <- 1 - pnorm(108, mean = 100, sd = 25)
a
```

```
## [1] 0.3744842
```

```
b <- pnorm(100, mean = 100, sd = 25) - pnorm(100, mean = 100, sd = 25)
b
```

```
## [1] 0
```

```
c <- pnorm(107, mean = 100, sd = 25) - pnorm(89, mean = 100, sd = 25)
c
```

```
## [1] 0.2802927
```

```
d <- pnorm(116, mean = 100, sd = 25) - pnorm(112, mean = 100, sd = 25)
d
```

```
## [1] 0.0545274
```

```
e <- pnorm(116, mean = 100, sd = 25) - pnorm(112, mean = 100, sd = 25)
e
```

```
## [1] 0.0545274
```

```
f <- pnorm(100, mean = 100, sd = 25) + pnorm(106, mean = 100, sd = 25, lower.tail = TRUE)
f
```

```
## [1] 1.094835
```

```
g <- qnorm(0.05, mean = 100, sd = 25)
g
```

```
## [1] 58.87866
```

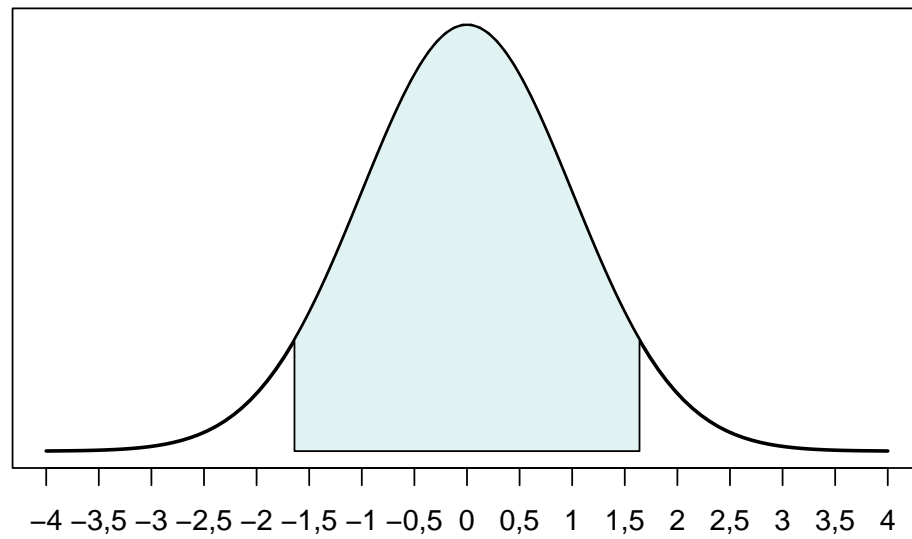
```
h <- qnorm(1 - 0.05, mean = 100, sd = 25)
h
```

```
## [1] 141.1213
```

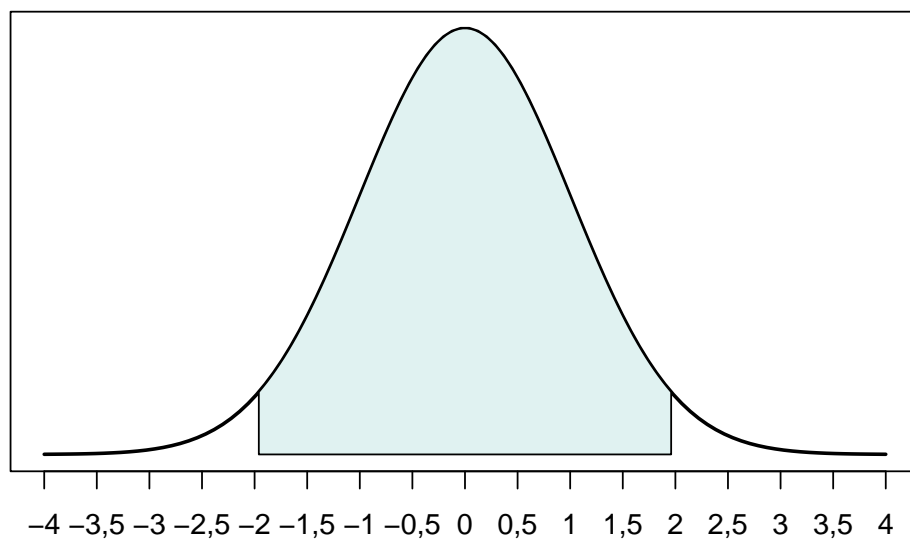
```
i <- qnorm(1 - 0.975, mean = 100, sd = 25)
i
```

```
## [1] 51.0009
```

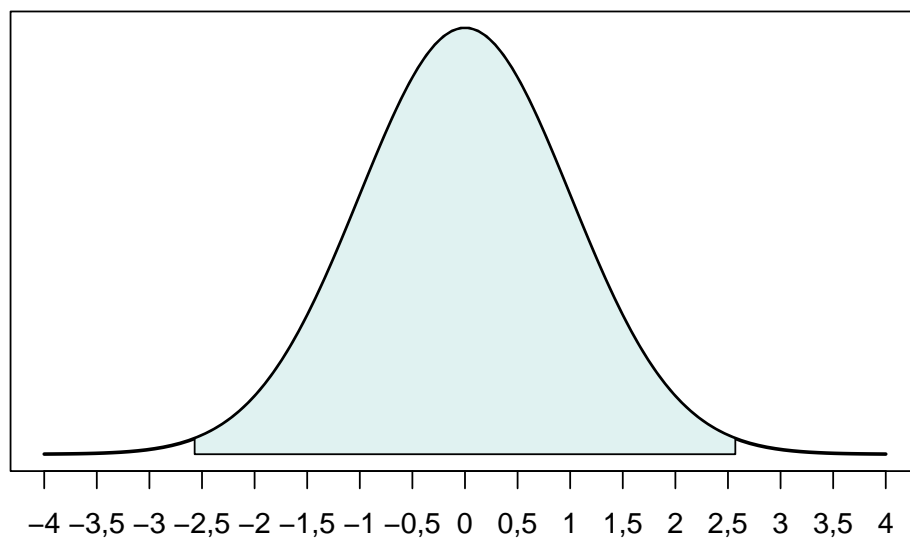
3. a) 0.0873679
- b) 0.2160174
- c) 0.7398416
- d) 0.3964341
- e) -0.706161
- f) 50
- g) 0.5972049



4. a)

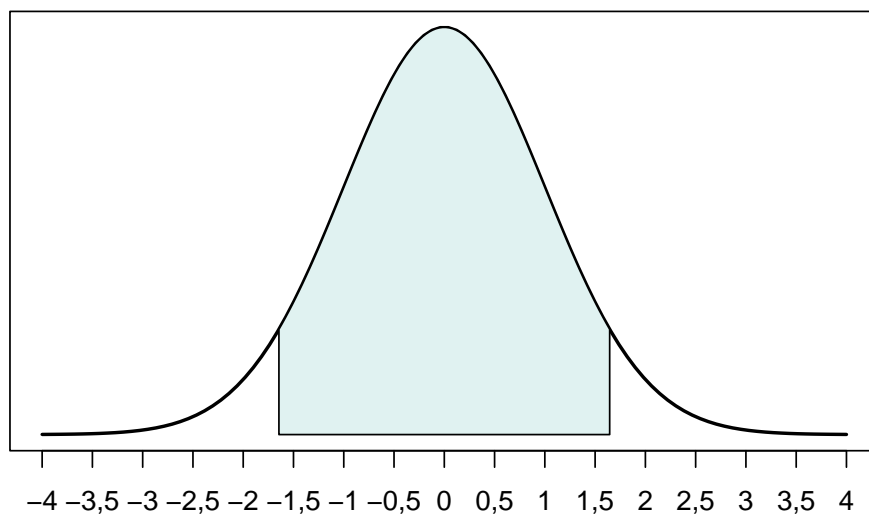


b)

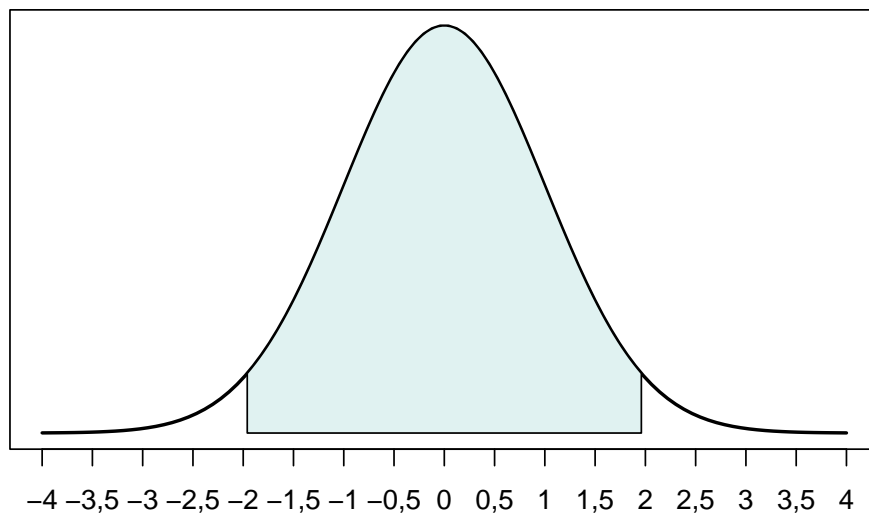


c)

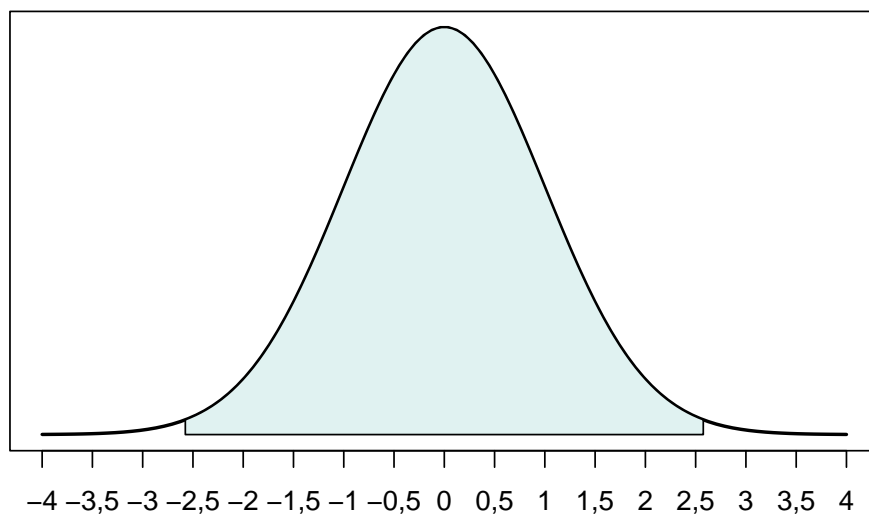
5. a) $(-1.6448536, 1.6448536) \mid z = 1.6448536$
- b) $(-1.959964, 1.959964) \mid z = 1.959964$
- c) $(-2.5758293, 2.5758293) \mid z = 2.5758293$



d) a)



b)



c)

Obs: o alunos “Rodrigo Farias Oliveira - 118110711” não participou da resolução dessa lista, por mais que tenhamos tentado ajudar o mesmo a relaizar até o ultimo momento.