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
```

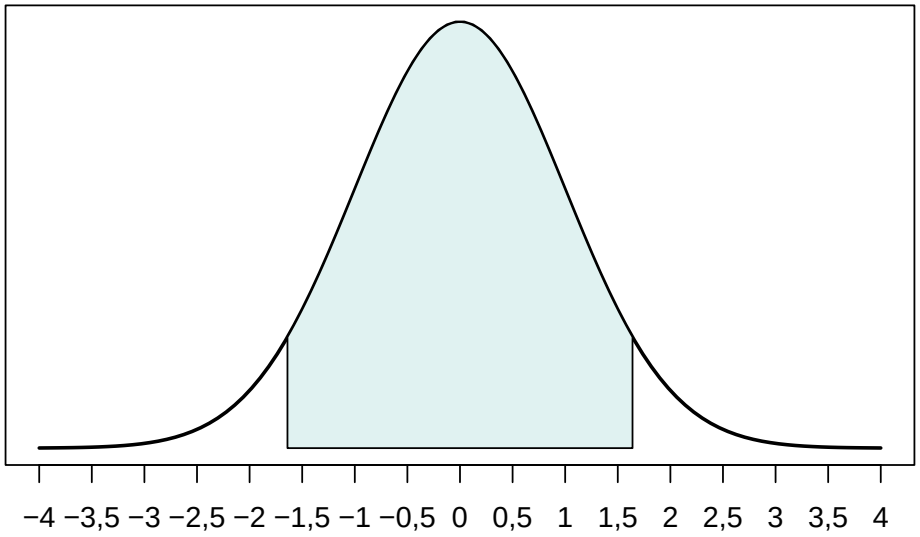
```
h <- qnorm(1 - 0.05, mean = 100, sd = 25)
h
```

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

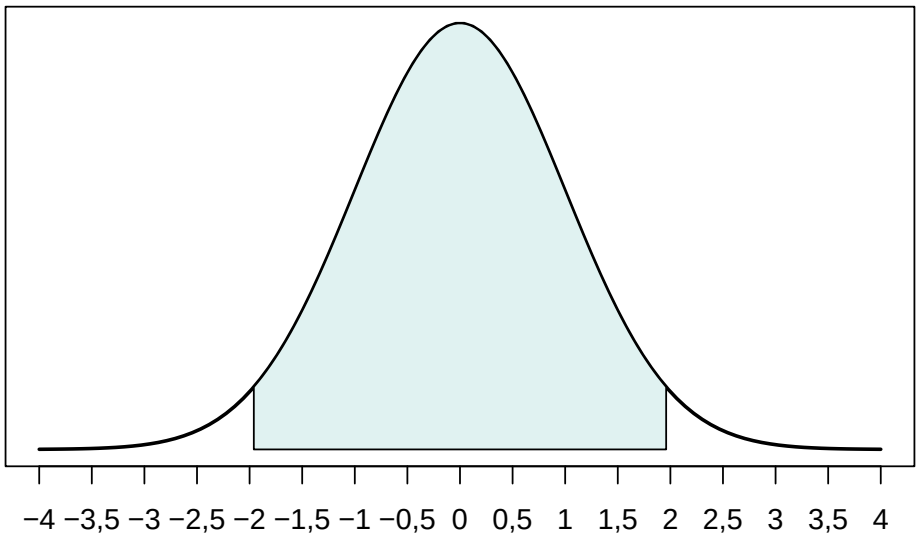
```r
i <- qnorm(1 - 0.975, mean = 100, sd = 25)
i
```

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

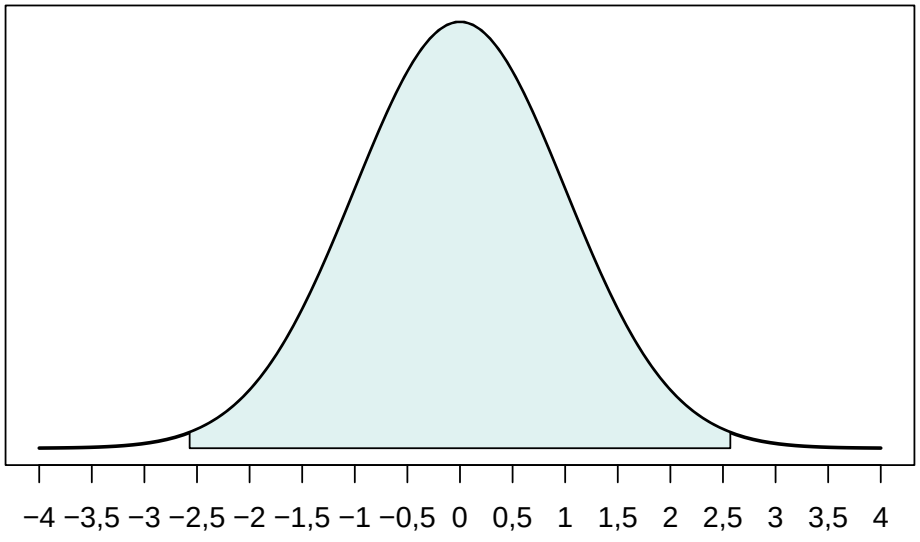
3. a) 0.0873679
   b) 0.2160174
   c) 0.7398416
   d) 0.3964341
   e) -0.706161
   f) 50
   g) 0.5972049



4. a)



b)



c)

5. a) (-1.6448536, 1.6448536) | z = 1.6448536

   b) (-1.959964, 1.959964) | z = 1.959964

   c) (-2.5758293, 2.5758293) | z = 2.5758293