

# Examen Estadística Mío

## Five

A hardware store sells some new parts and want to make sure it's making profit.

X is defined as the profit for the store by mass of product and its probability density function is()

Knowing that the function is defined between 6 and 8 , please answer the following questions rounding to 3 decimal places:

a)

```
integrate(function(x){((57*x^2)-2072)/1480},6,8)
```

b)

```
varianceNotFinished <- integrate(function(x){(x^2*(57*x^2-2072)),  
varianceNotFinished
```

```
varianceNotFinished - 1^2  
#Da error pero de cabeza da 53.3726
```

```
varianceNotFinished <- 53.3726  
sqrt(varianceNotFinished)  
#[1] 7.305655
```

c)

```
integrate(function(x){((57*x^2)-2072)/1480},6.48,7.912)  
#0.8605
```

d)

```
integrate(function(x){((57*x^2)-2072)/1480},6,6.9)
#0.1844
```

Seis

The age of spanish population follows a normal distribution with mean 25.6503 and standard deviation 12.6413.

Answer the following questions.

All results must be given with 4 decimals.

a)

```
qnorm(0.5,25.6503, 12.6413)
```

b)

```
qnorm(0.528,25.6503, 12.6413)
```

c)

```
proport <- pnorm(29.6141, 25.6503, 12.6413) - pnorm(17.0094, 25
proport
```

f)

```
norm(24.9507, 25.6503, 12.64)
```

**uno**

a)

```
probab <- 135 / (5*24)
fivemails <- 1 - ppois(4, probab * 6)
fivemails
#0.8029
```

b)

```
fourmails <- 1 - dpois(4, probab * 6)
fourmails
#0.8987
```

c)

```
mean <- probab * 10
mean
#11.25
```

e)

zero because an exact number gives 0 as seen in the theory

dos

En papel

Exámenes 1MidTerm