ICA6

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2022-09-22

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## Question 1

### a

p(x) = cx ∫(0,4) = 1/2\*cx^2

8c = 1

c = 1/8

### b

∫(0,2)1/8\*x^2 = 4/16 = 1/4

The answer is 1/4.

## Question 2

### a

pexp(90,1/240)

## [1] 0.3127107

### b

pexp(90,1/240)/pexp(300,1/240)

## [1] 0.4382801

### c

1-pexp(400,1/240)

## [1] 0.1888756

## Question 3

### a

1-pnorm(16.7,10,2.5)

## [1] 0.003681108

### b

1-pnorm(17,10,2.5)

## [1] 0.00255513

### c

pnorm(17,10,2.5)-pnorm(16.7,10,2.5)

## [1] 0.001125978