

FIAP

CHALLENGE SPRINT ESTATISCA - R -

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Cálculos:

Handwritten calculations for a Poisson distribution with $\lambda = 2.5$.

a)
$$P(x=3) = \frac{e^{-2.5} \times 2.5^3}{3!} \times 100 \approx 21.37\%$$

b)
$$P(x=2) + P(x=3) + P(x=4) + P(x=5)$$

$$P(x=2) = \frac{e^{-2.5} \times 2.5^2}{2!} \approx 0.2565$$

$$P(x=3) = \frac{e^{-2.5} \times 2.5^3}{3!} = 0.2137$$

$$P(x=4) = \frac{e^{-2.5} \times 2.5^4}{4!} = 0.1336$$

$$P(x=5) = \frac{e^{-2.5} \times 2.5^5}{5!} = 0.0668$$

$$(0.2565 + 0.2137 + 0.1336 + 0.0668) \times 100$$

$$\approx 67.06\%$$

RESULTADOS:

$$(X=9) = \frac{e^{-15} \times 15^9}{9!} \approx 0.032407167$$

$$d) C_{X=1} = \frac{e^{-7,9} \times 7,9^1}{1!} \approx 0,00414 \approx 0,41\%$$

$$a) 21,3\%$$

$$b) \approx 67,06\%$$

$$c) \approx 6,98\%$$

$$d) \approx 0,41\%$$

RESULTADOS TOTAIS:

A - \cong 21,3%

B - \cong 67,06%

C - \cong 6,98%

D - \cong 0,41%