Quiz 6

1

2 points possible (graded)

If every student independently have 10% probability to be late, what is the probability that in a class of 30 students:

a) Nobody is late?

- 4.2% ✔
- 8.0%
- 17.4%
- 33.3%

b) Exactly 1 student is late?

- 3.33%
- 5.25%
- 7.75%
- 14.1% ✔

Submit

Answers are displayed within the problem

2

1 point possible (graded)

Assume a telemarketer's successful sales per hour is a Poisson random variable with $\lambda = 2$. What is the probability that the telemarketer makes no sales in 1 hour?

- 13.5% ✔
- 22.5%
- 27.7%
- 31.2%

Submit

Answers are displayed within the problem

3

1 point possible (graded)

F is the cumulative distribution function for a continuous random variable. If $F(b) - F(a) = 0.20$, then

- $[a, b]$ has length 0.20
- $P(X = b) - P(X = a) = 20\%$

- $P(X \in [a, b]) = 20\%$ ✔

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Answers are displayed within the problem

4

1 point possible (graded)

The height of the probability density function of a uniformly distributed random variable is inversely proportional to the width of the interval it is distributed over.

- True ✔
- False

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Answers are displayed within the problem

5

1 point possible (graded)

The linear transformation of a normal random variable is also a normal random variable.

- True ✔
- False

Submit

Answers are displayed within the problem