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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

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

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

☐ $P(X = b) - P(X = a) = 20\%$

☐ $P(X \in [a, b]) = 20\%$

Submit

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

Submit

5

1 point possible (graded)

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

☐ True

☐ False

Submit