Time left 0:34:27

Suppose that X has a Weibull distribution with $\beta = 0.2$ and $\delta = 50$ hours. Determine the mean of X.

- a. 160
- b. 6000
- c. 8400
- d. 7200

Clear my choice

Next page

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Question 4

A synthetic fiber used in manufacturing carpet has tensile strength that is **normally distributed** with a mean of 500 and a standard deviation of 25. Find the probability that a random sample of n = 10 fiber specimens will have a sample mean tensile strength that exceeds 505.

- a. 0.26
- b. 0.18
- c. 0.14
- d. 0.31

Clear my choice

Next page

Quiz navig

1 2 3 9

Finish attempt

改善 KAIZEN TEAM

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Flag question

Suppose that X has a Weibull distribution with $\beta = 0.2$ and $\delta = 70$ hours. Determine the mean of X.

- a. 7200
- b. 6000
- c. 8400
- d. 160

Clear my choice

Next page

改善 KAIZEN TEAM

The sugar content of the syrup in canned peaches is normally distributed. A random sample of $n = 25$ cans yields a sample standard deviation of $s^2 =$ 23.04 milligrams^2. Calculate a 98% **two-sided** confidence interval for σ^2.

- ○ a. [12.87, 50.93]
- ○ b. [12.14, 55.93]
- ○ c. [14.05, 44.59]
- ○ d. [4.8, 12.73]

Question 1

Not yet answered

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Flag question

Chemical material is studied for impurities. Suppose that the number of impurities (particles) per kilogram of material is a Poisson random variable with a mean of 0.001 particles per kilogram.

a) What is the expected number of kilograms of chemical material required to obtain 5 particles of contamination?

b) What is the standard deviation of the kilograms of chemical materials required to obtain 5 particles of contamination?

c) What is the probability that the amount of the chemical material in kilograms until the fourth contamination particle exceeds 3,000 kilograms?

a) 5000

b) 2236.068

c) 0.647232

Question 2

Not yet answered

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Flag question

Suppose that X has a Weibull distribution with $\beta = 0.5$ and $\delta = 50$ hours.

a) Determine the mean of X.

b) Determine the variance of X.

c) Determine P(X>5000)

a) 100

b) 50000

c) 4.54*10^-5

KAIZEN TEAM 改善

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The volume of a juice filled into a can is uniformly distributed between 243 and 250 milliliters. What are the mean and standard deviation of the volume of juice? Every milliliter of the juice costs the producer $0.01. Any more juice in the can than 244 milliliters is an extra cost to the producer. What is the mean extra cost?

Select one:

- a. $0.025
- b. $0.500
- c. $2.50
- d. $5.00

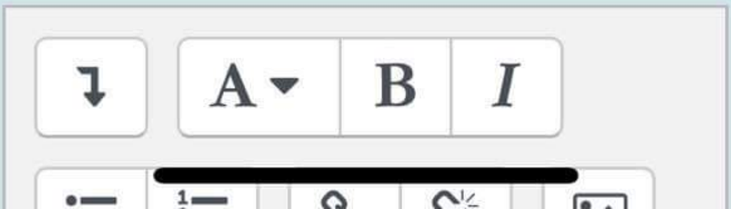
More
Add to story

6:51

In the laboratory analysis of samples from a chemical process, **nine** samples from a process are analyzed daily. In addition a control sample is analyzed **twice each day** to check the calibration of the laboratory instruments.

a)How many different sequences of process and control samples are possible each day? assume that the process samples are considered identical and the control samples are considered identical .

b)How many different sequences of process and control samples are possible if we consider the six process samples to different and the two control samples to be identical



Flag question

Consider the following probability density function of X. Find the expected value of y = 2X

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are analyzed daily. In addition a control sample is analyzed **twice each**
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a)How many different sequences of process and control samples are p
assume that the process samples are considered identical and the co
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b)How many different sequences of process and control samples are po
the six process samples to different and the two control samples to be id

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a) 28

b) 20160

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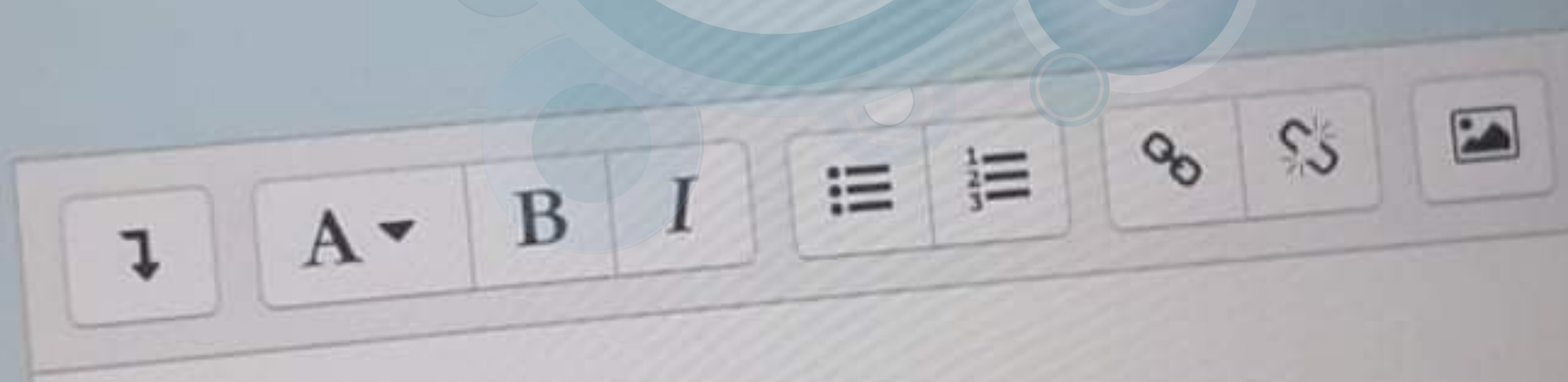
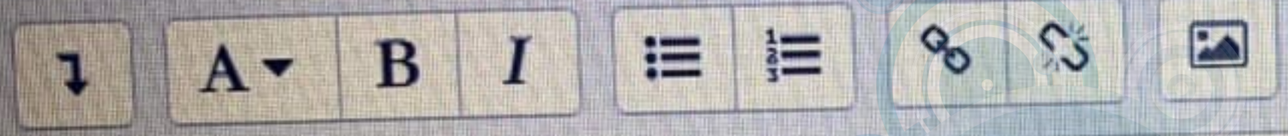
An electrical company has around 300,000 account to be served. All accounts are metered and billed monthly. The probability that an account has an error in a month is 0.001, and accounts can be assumed independent.

a) what are the mean and the standard deviation of the number of account errors each month

b)Approximate a value of errors so that the probability that the number f errors exceeds this value is 0.05



If the probability is **0.6** that any person will dislike the taste of a new tooth paste, what is the probability that at most **10 persons** out of **11** randomly selected persons **will like it?**



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Flag question

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a) what are the mean and the standard deviation of the number of account errors each month

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An inspector working for a manufacturing company has a 97% chance of correctly identifying defective items and a 99% chance of correctly classifying a good item as good. The company has evidence that 2% of the items its line produces are nonconforming.

If an item selected at random is classified as defective, what is the probability that it is indeed defective?

- a. 0.6644
- b. 0.9998
- c. 0.3356
- d. 0.9680
- e. 0.0147

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Question 1

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The time between arrivals of aircraft at Aqaba air port is exponential distributed with a mean of half an hour.

a) What is the probability that less than two aircraft arrived within an hour

b) determine the length of an interval of time (in hours) such that the probability of no arrivals occur during the interval is 0.1

A B I

a) 0.063869

b) the length will be 231 hours

Quiz na

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The time between arrivals of cars at a drive-through restaurant is exponentially distributed with a mean of 8 minutes. What is the probability that a worker waits longer than a half-hour for a car? (Answer to the nearest 4 decimals).

Answer:

Next page

based on the history of data collected, they can provide the following probability distribution for the number of orders per week. It is known that the profit is 10% of the order, What is the mean profit per week for the company?

Orders	Probability
100	0.1
140	0.15
150	0.2
170	0.25
200	0.25
210	0.15

- a. 32.2
- b. 48.3
- c. 161
- d. 18.5

The time between arrivals of cars at a drive-through restaurant is exponentially distributed with a mean of 10 minutes. Suppose that the worker has already been waiting for one hour for a car. What is the probability that one arrives within the next 9 minutes? (Answer to the nearest 4 decimals).

Answer:

Next page

In a processing plant, 25 tanks are used for materials storage. Four tanks are selected at random and without replacement. Suppose that seven of the tanks contain material in which the viscosity exceeds the customer requirements. In addition to the seven tanks with high viscosity levels, three different tanks contain material with high impurities. How many possible samples such that exactly one tank in the sample contains high-viscosity material and exactly one tank in the sample contains material with high impurities?

Answer:

Next page

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The time between arrivals of cars at a drive-through restaurant is exponentially distributed with a mean of 10 minutes. What is the probability that a worker waits longer than a half-hour for a car? (Answer to the nearest 4 decimals).

Answer: 0.0498

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Quiz na

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A multiple-choice test contains 22 questions, each with three answers. Assume a student just guesses on each question. (Hint: use two decimals for the probability).

what is the probability the student answers less than seven questions correctly? (Answer to the nearest two decimals).

Answer: 0.37

Next page

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The number of cracks in a section of interstate highway that are significant enough to require repair is assumed to follow a Poisson distribution with a mean of half cracks per kilometer. What is the probability that at most one crack requires repair in 3 kilometers of the highway? (Answer to the nearest 3 decimals)

Answer: 0.014872

Next page

Quiz navigation

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Question 3

Not yet answered

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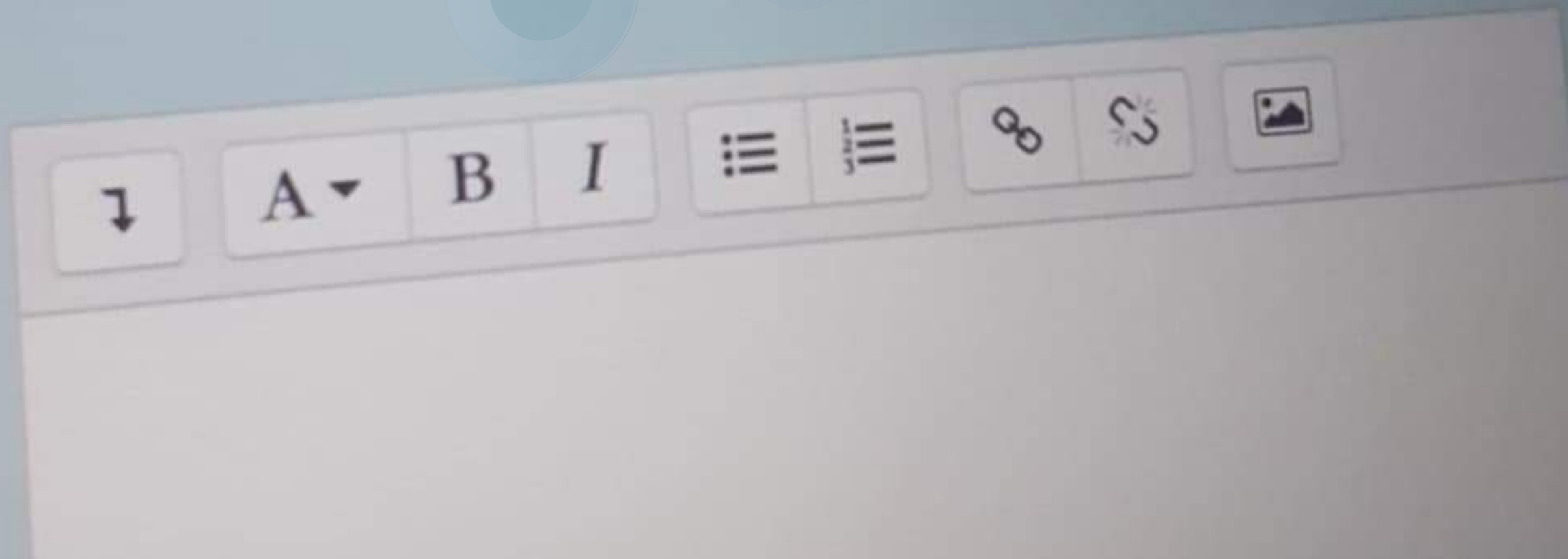
Flag question

The number of failures of testing instrument from contamination particle on the product is a Poisson random variable with a mean of 0.04 failures per hour.

a) what is the probability that the instrument doesn't fail in an **6 hours** shift?

b) what is the probability that at least **thee** failures in a 24-hour day



The weight of a sophisticated running shoes is normally distributed with a mean of 0.36 kg and standared deviation 0.01kg

a) what is the probability that a shoe weighs more than 0.37 kg?

b) what must be the standard deviation f weight be in order for company to state that 99.9% of its shoes weighs less than 0.37 kg

KAIZEN

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A company employs 1500 men under the age of 55 Suppose that 20 % carry a marker on the male chromosome that indicates an increased risk for high blood pressure.

a) if 10 men in the company are tested for the marker in this chromosome, what is the probability that exactly one man has the marker?

b) if 10 men in the company are tested for the marker in this chromosome, what is the probability that more than one man has the marker?

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Question 1

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A juice beverage machine is adjusted to release a certain amount of syrup into a chamber where it is mixed with carbonated water. A random sample of **25** beverages was found to have a mean syrup content of X_{Avg} **50ml** and a standard deviation of **s = 0.5** ml. Find a **95%** CI on the mean volume of syrup dispensed.

- a. [49.8, 50.2]
- b. [39.8, 40.2]
- c. [29.8, 30.2]
- d. [44.8, 45.2]

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Quiz navig

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Question 3

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A trading company has ten computers that it uses to trade on the New York Stock Exchange (NYSE). The probability of a computer failure in a day is 0.06, and the computers fail independently. Computers are repaired in the evening and each day is an independent trial.

What is the mean number of days until all ten computers fail on the same day?

Answer:

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Next page

Quiz navigation

1 2 3 4 5 6 7 8 9 10 11

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KAIZEN TEAM

The production of solar cells produces 1% of defective cells. Assume the cells are independent and that a lot contains 1000 cells. Approximate the probability that less than 10 cells are defective. (Answer to the nearest 3 decimals).

Answer:

Next page

In a processing plant, 25 tanks are used for materials storage. Four tanks are selected at random and without replacement. Suppose that seven of the tanks contain material in which the viscosity exceeds the customer requirements. In addition to the seven tanks with high viscosity levels, three different tanks contain material with high impurities. How many possible samples such that exactly one tank in the sample contains high-viscosity material and exactly one tank in the sample contains material with high impurities?

Answer:

Next page

The diameter of the dot produced by a printer is normally distributed with a mean diameter of 0.006 cm. What standard deviation of diameters is needed so that the probability that the diameter is between 0.003 and 0.009 cm is 0.99? (Answer to the nearest six decimals).

Answer:

Next page

Quiz

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The diameter of the dot produced by a printer is normally distributed with a mean diameter of 0.005 cm and a standard deviation of 0.002 cm. What is the probability that the diameter is between 0.004 and 0.006 cm? (answer to the nearest two decimals).

Answer:

Next page

A multiple-choice test contains 20 questions, each with three answers. Assume a student just guesses on each question. (Hint: use two decimals for the probability).

what is the probability the student answers less than seven questions correctly? (Answer to the nearest two decimals).

Answer:

Next page

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Next page