Time left 0:05:11

Question 8

Not yet answered

Marked out of 1.00

Flag question

Kidney failure is due to either natural factors (75%) or outside factors (25%). Outside factors are related to impure water and specific food types. Natural factors are due to Genetics inheritance. suppose that 24 patients will visit a clinic with Kidney failure. Assume that the causes of this disease for the individuals are independent.

What is the probability that three or more individuals have conditions caused by outside factors? (round to the nearest two decimals 0.00)

Answer:

Next page

Quiz n

1 2 9

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Time left 0:10:28

Question 6

Not yet answered

Marked out of 1.00

Flag question

In a production line, 22 filling machines are used for cans filling. Four cans are selected at random and without replacement. Suppose that Five of the machines cause overweight that exceeds the customer requirements. In addition, three different machines cause underweight filling. How many possible samples such that exactly one can in the sample is considered overweight and exactly one can in the sample is considered underweight?

Answer:

Next page

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Quiz navigo

1 2 3

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Finish attempt

Question 5

Not yet answered

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Flag question

A company has been monitoring orders from customers and based on the history of data collected, the sales **provided the following probability distribution** for the number of orders per month. It is known that the profit is 25% of the order, What is the mean profit per month for the company? (round to the nearest two decimals 0.00)

order	prob
80	0.30
95	0.40
110	0.20
125	0.10

Answer:

Next page

Time left 0:03:32

Question 8

Not yet answered

Marked out of 1.00

Flag question

Kidney failure is due to either natural factors (75%) or outside factors (25%). Outside factors are related to impure water and specific food types. Natural factors are due to Genetics inheritance. suppose that 24 patients will visit a clinic with Kidney failure. Assume that the causes of this disease for the individuals are independent.

What is the probability that three or more individuals have conditions caused by outside factors? (round to the nearest two decimals 0.00)

Answer:

Next page

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Question 5

Not yet answered

Marked out of 1.00

Flag question

Kidney failure is due to either natural factors (80%) or outside factors (20%). Outside factors are related to impure water and specific food types. Natural factors are due to Genetics inheritance. suppose that 25 patients will visit a clinic with Kidney failure. Assume that the causes of this disease for the individuals are independent.

What is the probability that three or more individuals have conditions caused by outside factors? (round to the nearest two decimals 0.00)

Answer:

Next page

Quiz navi

1 2 3

7 8 9

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Time left 0:44:39

Question 3

Not yet answered

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Flag question

Three different delivery companies (1, 2, 3) work to serve customers in Amman. Historical data shows that **25%** of deliveries from company 1 are **not** on time, **30%** of company 2's are **not** on time, and **50%** of company 3's deliveries are **not** on time. Suppose that your order is delivered to you by one of the three companies randomly, what is the probability that company **3** delivered your order given that it **was on time**? (round to the nearest two decimals 0.00)

Answer:

Next page

Time left 0:31:55

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1.00

Flag
question

The following table provides an example of n parts classified by process type and as defective. P of defective given a surface flaw is 0.25, and P(D) = 0.2

What is the total number of experiments (n)?

		Surface Flaws		
		Yes (event F)	No (F')	Total
Defective	Yes (event D)	?	40	
	No (D')	45	?	
				n

Answer:

Next page

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Time left 0:25:14

Question 5

Not yet answered

Marked out of 1.00

Flag question

Three different delivery companies (1, 2, 3) work to serve customers in Amman. Historical data shows that **25%** of deliveries from company 1 are **not** on time, **30%** of company 2's are **not** on time, and **50%** of company 3's deliveries are **not** on time. Suppose that your order is delivered to you by one of the three companies randomly, what is the probability that company **3** delivered your order given that it **was on time**? (round to the nearest two decimals 0.00)

Answer:

Next page

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Time left 0:52:14

Question 2

Not yet answered

Marked out of 1.00

Flag question

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 least one crack requires repair in 3 kilometers of the highway? (Answer to the nearest 3 decimals)

Answer:

Next page

Quiz navigation

1 2 3 4 5 6 9

Finish attempt ...

The following table provides an example of n parts classified by process type and as defective. P of defective given a surface flaw is 0.3, and P(D) = 0.1

What is the total number of experiments (n)?

		Surface Flaws		
		Yes (event F)	No (F')	Total
Defective	Yes (event D)	?	30	
	No (D')	35	?	
				n

Answer:

Next page

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Question 9

Not yet answered

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Flag question

The probability that a patient carries a virus is 0.3. Three patients are checked, and the patients are independent.

What is the probability that none carries the virus? (Do not round the number)

Answer:

Finish attempt

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of

In a production line, 24 filling machines are used for cans filling. Four cans are selected at random and without replacement. Suppose that Five of the machines cause overweight that exceeds the customer requirements. In addition, three different machines cause underweight filling. How many possible samples such that exactly one can in the sample is considered overweight and exactly one can in the sample is considered underweight?

Answer:

Finish attempt ...

The probability that a patient carries a virus is 0.10. Three patients are checked, and the patients are independent.

What is the probability that none carries the virus? (Do not round the number)

Answer:

Time left 0:06:15

Three different delivery companies (1, 2, 3) work to serve customers in Amman. Historical data shows that **25%** of deliveries from company 1 are **not** on time, **35%** of company 2's are **not** on time, and **50%** of company 3's deliveries are **not** on time. Suppose that your order is delivered to you by one of the three companies randomly, what is the probability that company **1** delivered your order given that it **was on time**? (round to the nearest two decimals 0.00)

Answer:

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Question 9

Not yet answered

Marked out of 1.00

Flag question

Kidney failure is due to either natural factors (80%) or outside factors (20%). Outside factors are related to impure water and specific food types. Natural factors are due to Genetics inheritance. suppose that 25 patients will visit a clinic with Kidney failure. Assume that the causes of this disease for the individuals are independent.

What is the probability that three or more individuals have conditions caused by outside factors? (round to the nearest two decimals 0.00)

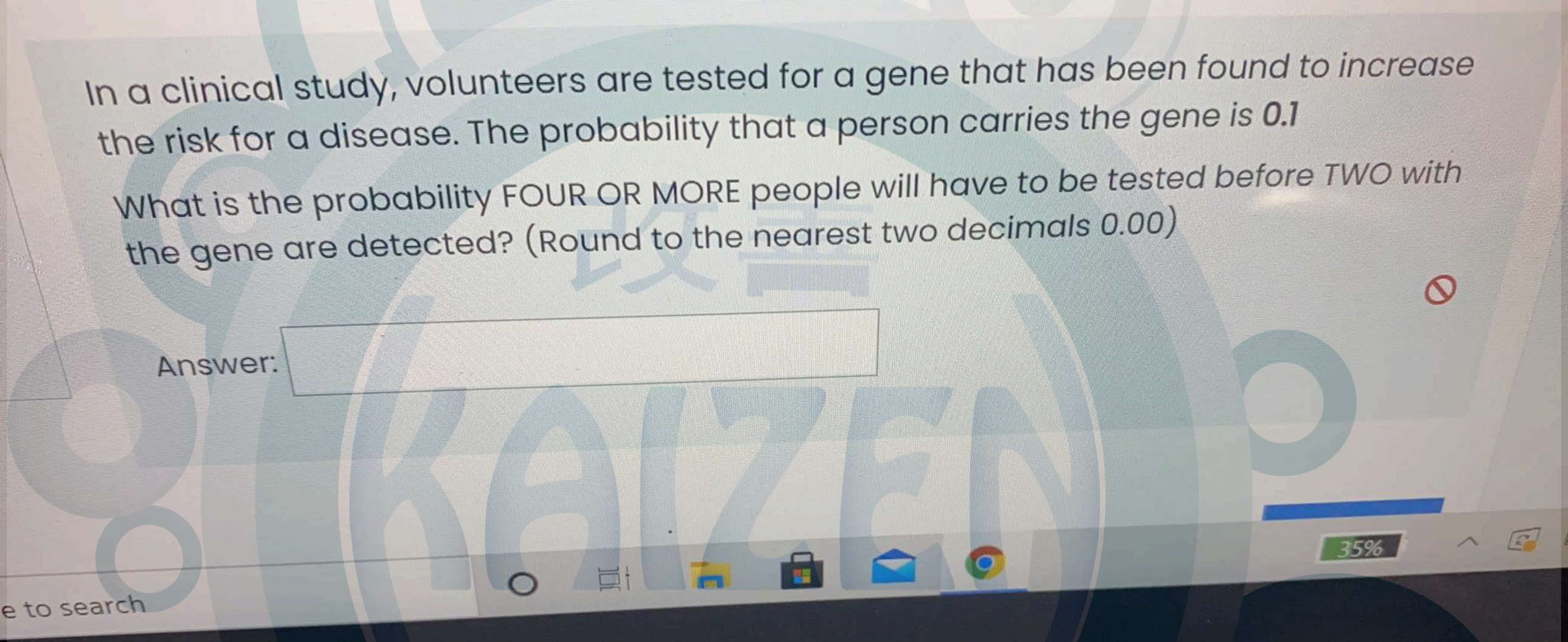
Answer:

Finish attempt ...

In a clinical study, volunteers are tested for a gene that has been found to increase the risk for a disease. The probability that a person carries the gene is **0.1**

What is the probability FOUR OR MORE people will have to be tested before TWO with the gene are detected? (Round to the nearest two decimals 0.00)

Answer:



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Quiz

In a clinical study, volunteers are tested for a gene that has been found to increase the risk for a disease. The probability that a person carries the gene is 0.1

What is the probability FOUR OR MORE people will have to be tested before TWO with the gene are detected? (Round to the nearest two decimals 0.00)

Answer:

Next page

Time left

The probability that a patient carries a virus is 0.20. Three patients are checked, and the patients are independent.

What is the probability that none carries the virus? (Do not round the number)

Answer:

Next

Time left 0:09:48

Question 7

Not yet answered

Marked out of 1.00

Flag question

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:

Next page

Time left 0:06:27

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A multiple-choice test contains 24 questions, each with five answers. Assume a student just guesses on each question.

what is the probability the student answers less than Four questions correctly? (Answer to the nearest three decimals 0.000).

Answer:

Next page

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ENGINEERING STATISTICS(1)

Time left 0:23:31

Question 4

Not yet answered

Marked out of 1.00

Flag question

A manufacturer of wires has 4% defective of produced wires. Assume that the wires are independent and that a batch contains 1000 chips. Find the probability (approximately) that LESS THAN 25 chips are defective?

- a. 0.1141
- b. 0.0062
- c. 0.9938
- d. 0.8460
- e. 0.500

Next page

Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

Time left 0:21:42

Question 5

Not yet answered

Marked out of 1.00

Flag question

An X-Ray machine consists of two electrical components. Suppose that the probabilities that the first and second components works are 0.94 and 0.97. Assume that the components are independent. Determine the probability mass function of the number of components in the assembly that work.

- a. $P(X=0) = 0.0018 \quad P(X=1) = 0.0684 \quad P(X=2) = 0.9118$
- b. $P(X=0) = 0.0018 \quad P(X=1) = 0.0582 \quad P(X=2) = 0.9118$
- c. $P(X=0) = 0.9118 \quad P(X=1) = 0.0684 \quad P(X=2) = 0.0018$
- d. $P(X=0) = 0.9118 \quad P(X=1) = 0.0582 \quad P(X=2) = 0.0018$
- e. None of the above

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Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

Time left 0:38:21

Question 1

Not yet answered

Marked out of 1.00

Flag question

A quality engineer wants to check a lot that contains 200 parts, from which 30 parts do not conform to customer requirements. Two parts are selected at random, without replacement. Let the random variable X equal the number of conforming parts in the sample. What is the cumulative distribution function of X?

- a. $F(0) = 0.022 F(1) = 0.278 F(2) = 1.000$
- b. $F(0) = 0.022 F(1) = 0.256 F(2) = 0.722$
- c. $F(0) = 0.722 F(1) = 0.978 F(2) = 1.000$
- d. $F(0) = 0.022 F(1) = 0.150 F(2) = 1.000$
- e. None of the above

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Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

ENGINEERING STATISTICS(1)

Time left 0:27:31

Question 3

Not yet answered

Marked out of 1.00

Flag question

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 non-defective?

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

Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

Next page

Time left 0:12:14

Question 8

Not yet answered

Marked out of 1.00

Flag question

In health research, patients are tested for a gene that has been found to increase the risk for a disease. The probability that a person carries the gene is 0.25
i) What is the probability THREE OR MORE people will have to be tested before TWO with the gene are detected? ii) How many people are expected to be tested before TWO with the gene are detected?

- a. i) 0.90 ii) 13.33
- b. i) 0.94 ii) 8
- c. i) 0.96 ii) 10
- d. i) 0.99 ii) 20

Finish attempt ...

Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

ENGINEERING STATISTICS(1)

Time left 0:20:06

Question 6

Not yet answered

Marked out of 1.00

Flag question

A production line consists of 6 operations. However, three machining operations must be completed before any of the remaining three assembly operations can begin. Within each set of three, operations can be completed in any order (the sequence does matter). How many different production sequences are possible?

- a. 6!
- b. 3!
- c. Permut(6,3)
- d. Combin(6,3)
- e. 3!3!

Next page

Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

Time left 0:33:13

Question 2

Not yet answered

Marked out of 1.00

Flag question

An x-ray checking device is used to detect defects. The probability of correct detection of a defected part is 0.96. Suppose that three parts are checked and that the detections are independent. Let the random variable X denote the number of defected parts that are detected. Determine the probability mass function of X.

- a. $P(X=0) = 6.4 \times 10-5$ $P(X=1) = 0.004608$ $P(X=2) = 0.110592$ $P(X=3) = 0.884736$
- b. $P(X=0) = 0.912673$ $P(X=1) = 0.084681$ $P(X=2) = 0.002619$ $P(X=3) = 2.7 \times 10-5$
- c. $P(X=0) = 2.7 \times 10-5$ $P(X=1) = 8.73 \times 10-4$ $P(X=2) = 0.028227$ $P(X=3) = 0.912673$
- d. None of the above

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Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...

ENGINEERING STATISTICS(1)

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Question 7

Not yet answered

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Flag question

A manufacturer requires you to investigate a batch of semiconductors that contains 95 unit, by selecting 9 without replacement for functional testing. If 4 units are defective, what is the probability that at least 1 defective unit is in the sample?

- a. 0.667
- b. 0.453
- c. 0.333
- d. 0.231
- e. 0.547

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Quiz navigation

1 2 3 4
5 6 7 8

Finish attempt ...