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Statistics MCQs – Discrete Distributions Part 11

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201. Cars arrive at an Engen petrol station at an average rate of 6 cars per hour. What is the probability that more than 4 cars arrive in 20 minutes?

- a. 0.560
- b. 0.371
- c. 0.053
- d. 0.297
- e. 0.323

Answer: C

202. Cars arrive at an Engen petrol station at an average rate of 9 cars per hour. What is the probability that more than 5 cars arrive in 30 minutes?

- a. 0.560
- b. 0.371
- c. 0.053
- d. 0.297
- e. 0.323

Answer: D

203. Cars arrive at an Engen petrol station at an average rate of 12 cars per hour. What is the probability that more than 2 cars arrive in 10 minutes?

- a. 0.560
- b. 0.371
- c. 0.053
- d. 0.297

e. 0.323

Answer: E

204. A computer that operates continuously breaks down randomly on average 6 times per month (4 weeks) . What is the expected number of breakdowns in 3 weeks?

a. 4.5

b. 6.0

c. 3.0

d. 12.0

e. 9.0

Answer: A

205. A computer that operates continuously breaks down randomly on average 6 times per month (4 weeks) . What is the expected number of breakdowns in one month?

a. 4.5

b. 6.0

c. 3.0

d. 12.0

e. 9.0

Answer: B

206. A computer that operates continuously breaks down randomly on average 6 times per month (4 weeks) . What is the expected number of breakdowns in 2 weeks?

a. 4.5

b. 6.0

c. 3.0

d. 12.0

e. 9.0

Answer: C

207. A computer that operates continuously breaks down randomly on average 6 times per month (4 weeks) . What is the expected number of breakdowns in 8 weeks?

a. 4.5

b. 6.0

- c. 3.0
- d. 12.0
- e. 9.0

Answer: D

208. A computer that operates continuously breaks down randomly on average 6 times per month (4 weeks) . What is the expected number of breakdowns in 6 weeks?

- a. 4.5
- b. 6.0
- c. 3.0
- d. 12.0
- e. 9.0

Answer: E

209. Tourists enter a popular game reserve at an average rate of one every five minutes. Each tourist is required to pay a cover charge of R10 per head. The cover charge is the only source of income for the game reserve. What is the expected income for the game reserve in an 8-hour day?

- a. R960
- b. R1920
- c. R6720
- d. R13440
- e. R2880

Answer: A

210. Tourists enter a popular game reserve at an average rate of one every five minutes. Each tourist is required to pay a cover charge of R20 per head. The cover charge is the only source of income for the game reserve. What is the expected income for the game reserve in an 8-hour day?

- a. R960
- b. R1920
- c. R6720
- d. R13440
- e. R2880

Answer: B

211. Tourists enter a popular game reserve at an average rate of one every five minutes. Each tourist is required to pay a cover charge of R10 per head. The cover charge is the only source of income for the game reserve. What is the expected income for the game reserve in a week (consisting of 7 days for which the reserve is open 8 hours per day) ?

- a. R960
- b. R1920
- c. R6720
- d. R13440
- e. R2880

Answer: C

212. Tourists enter a popular game reserve at an average rate of one every five minutes. Each tourist is required to pay a cover charge of R20 per head. The cover charge is the only source of income for the game reserve. What is the expected income for the game reserve in a week (consisting of 7 days for which the reserve is open 8 hours per day) ?

- a. R960
- b. R1920
- c. R6720
- d. R13440
- e. R2880

Answer: D

213. Tourists enter a popular game reserve at an average rate of one every five minutes. Each tourist is required to pay a cover charge of R10 per head. The cover charge is the only source of income for the game reserve. What is the expected income for the game reserve over three 8-hour days?

- a. R960
- b. R1920
- c. R6720
- d. R13440
- e. R2880

Answer: E

214. A random variable, X , follows a Poisson distribution with a standard deviation of 3. What is the expected value of X ?

- a. 9
- b. 3
- c. 16
- d. 5
- e. 4

Answer: A

215. A random variable, X , follows a Poisson distribution with a variance of 3. What is the expected value of X ?

- a. 9
- b. 3
- c. 16
- d. 5
- e. 4

Answer: B

216. A random variable, X , follows a Poisson distribution with a standard deviation of 4. What is the expected value of X ?

- a. 9
- b. 3
- c. 16
- d. 5
- e. 4

Answer: C

217. A random variable, X , follows a Poisson distribution with a variance of 5. What is the expected value of X ?

- a. 9
- b. 3
- c. 16
- d. 5

e. 4

Answer: D

218. A random variable, X , follows a Poisson distribution with a standard deviation of 2. What is the expected value of X ?

a. 9

b. 3

c. 16

d. 5

e. 4

Answer: E

219. Cars arrive at a tollgate at an average rate of 12 cars per hour. If a fee of R5.50 is required per car to be allowed to pass through the tollgate, what are the expected earnings of the tollgate in a 12-hour period?

a. R792

b. R936

c. R528

d. R660

e. R1584

Answer: A

220. Cars arrive at a tollgate at an average rate of 12 cars per hour. If a fee of R6.50 is required per car to be allowed to pass through the tollgate, what are the expected earnings of the tollgate in a 12-hour period?

a. R792

b. R936

c. R528

d. R660

e. R1584

Answer: B

Frequently Asked Questions (FAQs)

Tourists enter a popular game reserve at an average rate of one every five minutes. Each tourist is required to pay a cover charge of N\$10 per head. What is the expected income for the game reserve in

(- ja...@ on 14-Oct-2020)

1 Answer

Calculate tourists entering in 24 hours if one tourist every 5 minutes. then multiple it by \$ 10 too get expected income for game reseve

- **Examrace** on 18-Oct-2020

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