

Quiz 5 Results for Ali Asad

Score for this quiz: **10** out of 10

Submitted Apr 17 at 1:15pm

This attempt took 11 minutes.

Question 1

2 / 2 pts

X and Y are continuous random variables with a joint PDF given by:

$$f_{X,Y}(x,y) = \frac{c}{4}$$

for $0 \leq x \leq 1$ and $0 \leq y \leq 1$. The joint PDF is zero for all the other values of x and y . Find the value of constant c . (Enter your answer in A.BC format e.g. 1.32)

Correct!

Correct Answers

Between 3.99 and 4.01

4 (with margin: 0)

Question 2

2 / 2 pts

Assume that GPA of students in class is a continuous random variable

$G \sim U[3.4, 3.9]$. What is $P(G \in [3.0, 3.5])$? (Enter your answer in A.BC format e.g. 1.32)

Correct!

Correct Answers

0.2 (with margin: 0.2)

Between 0.19 and 0.21

Question 3

2 / 2 pts

Assume that GPA of students in class is a continuous uniform random variable $G \sim U[3.0, 4.0]$, what is $E[G|A]$ where the event $A = \{2.7 \leq G \leq 3.4\}$? (Enter your answer in A.BC format e.g. 1.32)

Correct!

Incorrect Answers

3.2 (with margin: 0)
Between 3.19 and 3.21

Question 4

2 / 2 pts

Assume that 40% of the time you commute to campus by van and 60% of the time you commute to campus by a bike. Your commute time to campus through a van is uniformly distributed between 30 to 50 minutes. Your commute time to campus through a bike is uniformly distributed between 25 to 35 minutes. What is the mean of your commute time? (Enter your answer in AB.C format e.g. 13.2)

You Answered

Incorrect Answers

34 (with margin: 0)
Between 33.9 and 34.1

Question 5

2 / 2 pts

For a Gaussian random variable $X \sim N(2, 1)$, what is $Var[3X + 2]$? (Enter your answer in A.BC format e.g. 1.35)

Correct!

9

Correct Answers

9 (with margin: 0)

Between 8.99 and 9.01

Quiz Score: **10** out of 10