Quiz 1

Total points 15/15

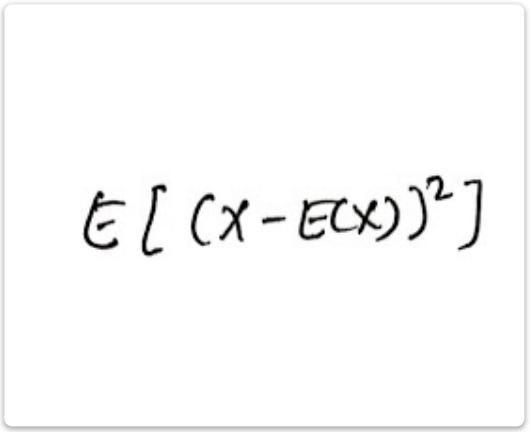
(1) Quiz 1 will also serve for the attendance of Today's (4 April 2020) lecture.
(2) All questions are compulsory and there is no negative marking.

The respondent's email address (**jaiswal.5@iitj.ac.in**) was recorded on submission of this form.

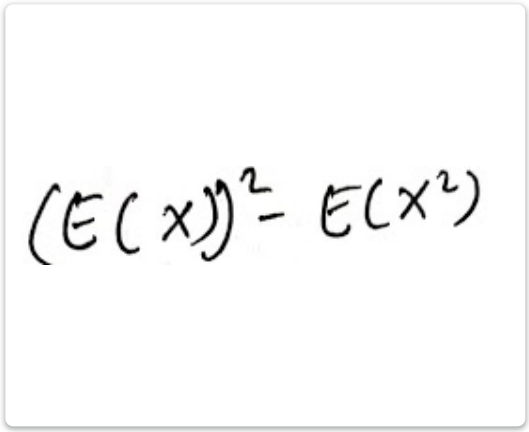
✓ Let f(x) be a function. Then when it is said to be the PDF? * 1/1

f(x) >= 0 for all x, and Integration over -inf to +inf should be one

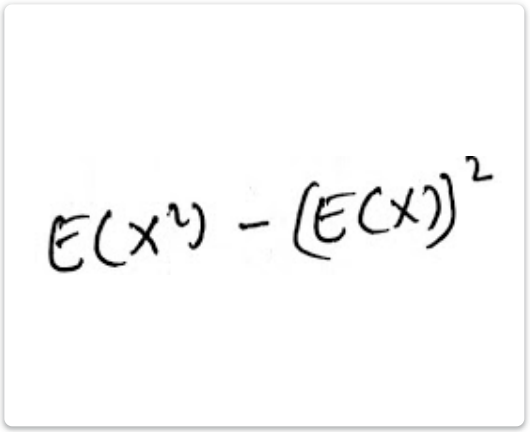
✓ For a random variable X, which of these expressions will represent the variance? * 2/2



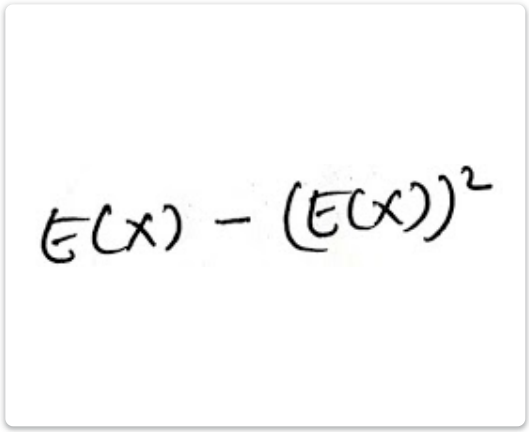
☑ Option 1 ✓



☐ Option 2



☑ Option 3 ✓



☐ Option 4

✓ Let X ~ N(3,4). What does this tell us about the distribution of X ? * 2/2

- ○ X has standard normal distribution
- ○ X has normal distribution with mean 3 and variance 2.
- ◉ X has normal distribution with mean 3 and standard deviation 2. ✓
- ○ None of these

✓ In the course Statistical Techniques, CGPA's are normally distributed with a mean of 2.9 and standard deviation of 0.6. What percentage of students in the class have a CGPA between 2.3 and 3.5? * 2/2

- (●) 68% ✓
- ( ) 84%
- ( ) 95%
- ( ) 99.7%

✓ Using t-table, find an interval, which contain P(X_6 > 1.5) * 2/2

- ( ) (0, 0.05)
- (●) (0.05, 0.10) ✓
- ( ) (0.10, 1)
- ( ) (0.25, 1)

✓ The mean life of a tire is 30,000 km with the standard deviation of 2000 km. Then, 68% of all tires will have a life between _____ km and _____ km. * 2/2

- (●) 28,000 km and 32,000 km ✓
- ( ) 24,000 km and 34,000 km
- ( ) 26,000 km and 34,000 km
- ( ) 27,000 km and 31,000 km

✓ On an IQ test with a mean of 100 and a standard deviation of 15, Ram scored 85. What is Ram's z-score? * 2/2

- ○ -2
- ◉ -1 ✓
- ○ 1
- ○ 2

✓ Let X be a chi-squared RV with dof 8. Then, standard deviation of X should be * 2/2

4 ✓

This form was created inside of IIT Jodhpur.

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