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| **PS TEST** |
| **Q1.** Suppose X follows a continuous uniform distribution from 1 to 5. Determine the conditional probability . |
| **Q2.** Calculate the 10% trimmed mean of the following data:  7, 3,-4,14,2,5,22,-7,9,5. |
| **Q3.** An electrical farm manufactures light bulbs that have a length of life approximately normally distributed, with mean 800hrs and standard deviation of 40 hrs. Compute the probability that a random sample of 16 balls will have an average life of less than 775 hrs. |
| **Q4.** If the random variable X, has a Gamma distribution with and . Evaluate. |
| **Q5**. The contents of seven similar containers of sulfuric acid are 9.8, 10.2, 10.4, 9.8, 10.0, 10.2 and 9.6 liters. Find a 95% confidence interval for the mean contents of all such containers, assuming an approximately normal distribution |
| **Q6.** Find the probability that a person flipping a coin gets   1. The third head on the seventh flip;   The first head on the fourth flip |
| **Q7.** Given the normally distribution random variable ‘X’ with mean 30 and standard deviation 6. Calculate the value of ‘x’ that has 80% of the normal curve area to the right. |
| **Q8.** Given the normally distribution random variable ‘X’ with mean 5 and standard deviation 2. Calculate calculate P(X>1). |