

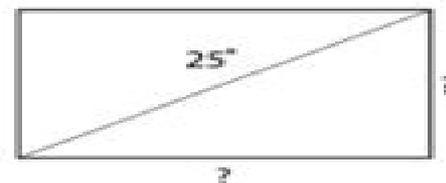
Advanced Mathematical Decision Making SLO Review

1. Given that an average of 18 people can fit inside a square measuring 5 feet by 5 feet, estimate the size of a crowd that is 10 feet deep on both sides of the street standing along a 1-mile section of a parade route. (1 mile = 5,280 ft)

Use the following for questions #2 – 4

The psychology department at a local college is studying the effects of sleep deprivation on student test performance of the 1099 students at the college. Every 7th student enrolled at the college according to an ordered list of student ID numbers was chosen for the study. There were a total of 157 students participating in the study. All the students took an exam at 8am after a good night's sleep to get a baseline score for each student. The students then stayed up all night before an 8 a.m. exam (a variation of the same exam) one week later. Their grades on the exam were recorded and compared to the score they received after good night's sleep to see if there was any effect. The effect was recorded as the change in the number of points (+ or -) on the second exam. With 73% of the students, the score was at least 10 points lower.

2. The number 73% represents what type of information?
A) Population B) sample C) parameter D) statistic
3. What method of data collection was used in the study?
A) experiment B) simulation C) census D) sampling
4. What type of sample was used in the study?
A) random B) stratified C) cluster D) systematic
5. The size of a television is the length of the diagonal of its screen in inches. The aspect ratio of the screens of older televisions is 4:3, while the aspect ratio of newer wide-screen televisions is 16:9. Find the width and height of an older 25-inch television whose screen has an aspect ratio of 4:3



6. If a job pays \$44,000 per year, what would be the estimated monthly after-tax income if you are required to pay 15% in federal income tax, 6.2% SSN, and 1.45% for Medicare?

Use the following information for questions #7 –87

Advanced Mathematical Decision Making In Finance Answers

D Keegan



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