

Quantitative analysis for bussiness



**ASSIGN
BUSTER**

What is the probability he makes exactly 3 sales in a two-week period?

Marks] Given a box with 2 25-watt, 3 4-watt and 4 100-watt bulbs, in how many ways could 3 bulbs be selected from the box? [2 Marks] Suppose your doctor recommends that you go on a particular diet for 2 weeks. Considering your build and bone structure, he assumes that the amount of weight You will lose is equally likely to lie between 5 and kegs. What is the average amount you might expect to lose on such a diet, given that X is the number of kegs you will lose and $5 < x < 10$ otherwise [5 Marks] A student takes a multiple-choice exam which contains 8 questions, each with 3 lternative aanswers.

Assume that he is guessing when answering each question. Then the probability that he answers a question correctly is question. What is the probability that he misses them all? 1 3 for each In a Q. A. B. Exam a sample of 30 marks yields a mean mark of 60 and a Standard Deviation of 15. Give a 95% Confidence Interval Estimate of the population mean, p . Edited by Fixity Reader Copyright(C) by Fixity Corporation, 2005-2009 For Evaluation Only. (f) Graduate: (l) (g) 10 [4 Marks] A manufacturing representative is considering the option of taking out an insurance policy to cover possible losses incurred in marketing a new product.

If the product is a complete failure, the representative feels that a loss of 60 000 would be incurred; if it is only moderately successful, a loss of 20 000 would be incurred. Insurance Actuaries have determined from market surveys and other available information that the probabilities that the product will be a failure or only moderately successful one 0. 01 and 0. 05 respectively. Assuming that the manufacturing representative would be

willing to ignore all other possible losses, what premium should the Insurance many charge for he policy in order to break even?

Do ten data present senescent evidence at ten coalescence level, that one production line tends to 1 produce more defectives tan the other or, equivalently, that $P(X_A > X_B) * 2$. State the appropriate hypothesis and test it. Question 8 You are the president of a company that makes wrist watches. The prestige line of watches, Chronometric 1 536 is water proof, stock proof, dust proof, and features anti-magnetic movement. This watch is sold to distributors at 25 a piece.

Your vice-president suggest that a guarantee to replace watches that fail within two years of purchase would allow a price increase of \$2. 00 per watch without a decrease in demand. The engineering department assures you that the life times of the Chronometric 1 536 follow some unknown probability distribution with mean $\mu = 35$ years and $\sigma = 0.5$ years . If sales remain constant at 100000 . Watches per year and a replacement watch would cost \$15, 00 is this a profitable policy for your company?