CHALLENGING EXPERIMENT 6

D.SACHIN 15BME0781 L31+32



1)







2. 1000 students had Written an examination the mean of test is 35 and standard deviation is 5.Assumning the to be normal find i) How many students Marks Lie between 25 and 40 ii) How many students get more than 40 iii) How many students get below 20 iv) How many students get 50



Answers:

i) 0.8185946

ii) 0.1586553

iii) 0.001349898

iv) 0.001205232

3. According to an article in Newsweek, the natural ratio of girls to boys is 100:105. In China, the birth ratio is 100: 114 (46.7% girls). Suppose you don’t believe the reported figures of the percent of girls born in China. You conduct a study. In this study, you count the number of girls and boys born in 150 randomly chosen recent births. There are 60 girls and 90 boys born of the 150. Based on your study, do you believe that the percent of girls born in China is 46.7?

H0: pbar=p0

H1: pbar~=p0



*Conclusion: The test statistic -1.644744 lies between the critical values -1.959964 and 1.959964. Hence, at .05 significance level, we do not reject the null hypothesis that percent of girls born in china is 46.7.*

4. A poll done for Newsweek found that 13% of Americans have seen or sensed the presence of an angel. A contingent doubts that the percent is really that high. It conducts its own survey. Out of 76 Americans surveyed, only 2 had seen or sensed the presence of an angel. As a result of the contingent’s survey, would you agree with the Newsweek poll? In complete sentences, also give three reasons why the two polls might give different results.

H0: pbar=p0

H1: pbar~=p0



*Conclusion: The test statistic -2.687745 does not lies between the critical values -1.959964 and 1.959964. Hence, at .05 significance level, we reject the null hypothesis that we do not agree with the newsweek poll.*