ASSIGNMENT #8
(due Friday, March 30)

CIs AND TESTS OF HYPOTHESES FOR PROBABILITIES (PROPORTIONS)

PROBLEM 6.5-1(a,b,e) (1+2+2+2=7 pt)
PROBLEM 6.5-3(a,b) (1+2=3 pt)

PROBLEM B (2 pt)

1. Refer to Problem 6.5-1. The manufacturer, Mr. Smith, claims that the the percentage of the flawed levers produced in his shop is 3%. Does the observed sample imply that this is not true?
2. Smith’s competitor claims that the proportion of flawed levers, manufactured in Smith’s shop, is 6%. Do you believe him?

Remark: In Problem B, in questions 1) and 2) test (with the significance level $\alpha = .05$) the stated ”null” hypothesis against the alternative hypothesis $p \neq 0.03$ and $p < 0.06$, respectively (with the significance level $\alpha = .05$).

CIs FOR DIFFERENCES OF PROBABILITIES (PROPORTIONS)

PROBLEM 6.5-13 (3 pt)
PROBLEM 6.5-16 (3 pt)

PROBLEM B (2+2=4 pt)

1). Refer to Problem 6.5-13. Test the hypothesis
$H_0 : p_1 - p_2 > 0.15$
versus
$H_a : p_1 - p_2 \leq 0.15$
2). Refer to Problem 6.5-16. Test the following hypotheses:
$H_0 : p_1 = p_2$
$H_a : p_1 \neq p_2$

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SAMPLE SIZE

PROBLEM 6.6-1         (2 pt)
PROBLEM 6.6-4         (2 pt)
PROBLEM 6.6-7         (2 pt)
PROBLEM 6.6-10        (2 pt)
PROBLEM 6.6-17        (2 pt)