<u>Ex</u>: The table below shows results from a simple random sample of front-seat occupants involved in car crashes (based on date from "Who Wants Airbags?" by Meyer and Finnney, *Chance*, Vol. 18, No. 2). Use a 0.05 significance level to test the claim that the fatality rate of occupants is lower for those in cars equipped with airbags. [Triola, 11th Edition, p. 464]

	Airbags Available	No Airbags Available
Occupant Fatalities	41	52
Total Number of Occupants	11,541	9,853

1. *Original* claim in symbolic form:

2. Competing idea (complement) in symbolic form:

3. H_0 :

H_1 :

4. $\alpha =$

5. Formula for the test statistic:

6. Observed value of the test statistic with calculations:

Graph showing the critical value(s), critical region, and the observed value of the test statistic:

Critical value(s):

7. Circle one: Reject H_0 Fail to reject H_0

8. Wording of the final conclusion in simple, nontechnical terms, addressing the *original* claim.

<u>Ex</u>   Sketch the picture and find the *P*-value for the previous example.

<u>Ex</u>   The numbers of online applications from simple random samples of college applications in 2003 and for 2009 are given by

	2003	2009
Number of applications in sample	36	27
Number of online applications in sample	13	14

(a). Compute the pooled estimate $\bar{p}$.

(b). Compute the test statistic.