(8 points; 12 minutes)

4. **Random samples of 500 women and 500 men were asked to evaluate their lob satisfaction as "Excellent," "High," "Moderate," or "Low." Usee the data below to test the claim that women and men have the same proportions of these ratings.** (Use $\alpha$ = 10% for this test.)

| Job Satisfac | Gender | | Row Total |
| --- | --- | --- | --- |
| | Female | Male | |
| Exceller | 64 | 72 | 136 |
| High | 103 | 126 | 229 |
| Moderat | 201 | 178 | 379 |
| Low | 132 | 124 | 256 |
| Col. Tot | 500 | 500 | 1000 |

Claim: _____

_____

$H_0$: _____

_____

$H_1$: _____

_____

(8 points; 8 minutes)

1. **A study of different "rehabilitation" programs needed the participation of 500 inmates from California prisons. A randomized list of all prisoners was prepared and the first 250 names on the list were assigned to rehab method #1 and the rest were assigned to rehab method #2. The rates of recidivism (later conviction and return to prison for another crime) were studied. Use the results below to make a 90% confidence interval for the difference between the recidivism rates for the two methods.**

| | Rehabilitation Method | |
| --- | --- | --- |
| | Method 1 | Method 2 |
| Returned to Prison | 112 | 175 |
| Did not return to Prison | 388 | 325 |