(10 points; 10 minutes)
8. Use the survey results below to test the claim that the eight issues listed are equally ranked as most important by voters in the region of the survey. The sample was selected at random from the list of all registered voters. Let $\alpha=0.025$.

Claim: $\qquad$

| Issue | Count |
| :--- | :---: |
| Taxes | 87 |
| Education | 105 |
| Security | 96 |
| Poverty | 108 |
| Transportation | 114 |
| Environment | 104 |
| Immigration | 87 |
| Social Security / | 99 |
| Medicare |  |

Ho: $\qquad$
$\mathrm{H}_{1}$ : $\qquad$

Total $=\mathbf{8 0 0}$
(7 points; 8 minutes)
9. A random sample of 50 houses valued at more than $\$ 300,000$ found $12 \%$ with significant health hazards, while a random sample of 46 homes valued at less than $\$ 100,000$ found $17.4 \%$ with significant health hazards. Create a $95 \%$ confidence interval for the difference between the the proportions of the two populations from which the samples came.

