

(10 points - 15 minutes)

3. The proportions of people in the U.S. that prefer 5 different kinds of entertainment are shown in the table below. A local survey of 600 people found 60 people who prefer movies, 300 who prefer to watch TV, 90 who like to listen to music, 30 who prefer dancing, and 120 that prefer to play sports. Test the claim that the true local proportions are the same as the national rates. (Use a 0.05 significance level for the test)

Claim: \_\_\_\_\_

H<sub>0</sub>: \_\_\_\_\_

H<sub>1</sub>: \_\_\_\_\_

Preferred Entertainment	National Rates	Local Survey Count
Watching Movies	0.15	60
Watching Television	0.35	300
Listening to Music	0.10	90
Dancing	0.10	30
Playing Sports	0.30	120
Survey Total =		600