

1. We want to investigate whether there's any dependency between i) being a Berkeley or Stanford student and ii) being a dog or cat person. We sampled 200 students from each university and asked their preference. The results is in below.

	Berkeley	Stanford
Dogs	40	60
Cats	160	140

- Specify the null and alternative hypothesis.
 - Compute the expected numbers of each cell.
 - Compute the χ^2 -statistic.
 - If the significance level was $\alpha = 0.05$, do we reject H_0 or not? You may need χ^2 -table.
2. Thanos claimed that the proportion of creatures integrated when he snap his finger depends on his snapping hand - left or right. He made an infinite-gauntlet-simulator to test his claim and he got the following results from experiments.

	Disintegrated	Survived
Left	15	25
Right	35	25

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- Compute the expected numbers of each cell.
- Compute the χ^2 -statistic.
- If the significance level was $\alpha = 0.05$, do we reject H_0 or not? You may need χ^2 -table.