R Fun (t-test and chi squared test)

1. You are a dog show judge and are trying to determine if there is a significant difference between the heights of corgis breed in the US and UK. Use the table below to test for significance in R.

|  |  |
| --- | --- |
| US Corgis | UK Corgis |
| 12 | 12.5 |
| 12.5 | 13 |
| 11 | 12 |
| 10 | 12 |
| 13 | 11 |

1. You are trying to determine if a pain reliver is helping patients with migraines. You treat 50 patients with the drug and 55 patients with a placebo. The patients were then monitored again one month later to see if they responded to the drug. Using the table below, determine if there is a significant difference between the treatment groups in R.

|  |  |  |
| --- | --- | --- |
|  | Responded | Not Responded |
| Treatment | 35 | 15 |
| No Treatment | 26 | 29 |

1. This data (grasshopper.csv) is for the range of motion in the middle walking leg of grasshoppers. In the experiment each grasshopper had the primary nerve serving the right leg crushed. The grasshopper was allowed to recover and then the nerve was recrushed. This experiment was done to test whether recovery in the grasshopper was due to repair of the crushed nerve or plasticity in some other nerve that hadn’t been crushed. Use a test you have learned to say whether recovery is due to repair of the crushed nerve or due to some other nerve taking over the role of the crushed nerve.