**1C Hypothesis Testing for Correlation**

1. A scientist takes 30 observations of the masses of two reactants in an experiment. She calculates a PMCC of $r=-0.45$.

The scientist believes there is no correlation between the masses of the two reactants. Test, at the 10% level of significance, the scientist’s claim, stating your hypotheses clearly.



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| $$x$$ | 31 | 28 | 38 | 37 | 18 | 17 | 21 | 29 |
| $$y$$ | 99 | 94 | 87 | 80 | 80 | 89 | 84 | 86 |

1. The table from the large data set shows the daily maximum gust, $x$ kn, and the daily maximum relative humidity, $y$%, in Leeming for a sample of eight days in May 2015.
2. Find the PMCC for these data
3. Test, at the 10% level of significance, whether there is evidence of a positive correlation between daily maximum gust and daily maximum humidity. State your hypotheses clearly