

**TI-84+ Lab 14 for Statistics 301**

**Topics:** Test of slope  $\beta_1$  of linear regression

**Dataset(s):** “illum.dat”, a dataset on effect of illumination on ability to read,

illumination, $x$	1	2	3	4	5	6	7	8	9	10
ability to read, $y$	70	70	75	88	91	94	100	92	90	85

**Test of slope  $\beta_1$ .**

Based on  $n = 10$  data points from “illum.dat”, we find sample slope  $b_1 \approx 2.418$ . Test if population slope,  $\beta_1$ , is *positive* at a level of significance of 5%.

- Type  $x$ ,  $y$  into  $L_1$ ,  $L_2$ .
- STAT TESTS LinRegTTest...  $L_1$   $L_2$   $1 > 0$  Calculate ENTER
- Since p-value  $\approx 0.023 < \alpha = 0.05$ , data indicates  $\beta_1 > 0$ .