T. 9.16.

a) From the numbers and using eq. (9.15) or your calculator,

\[ r = -0.89 \]

The negative $\Sigma/\Sigma$ means that the two variables tend to run in opposite directions. From Appendix C, the prob \( (|r| < r_0), \) with \( r_0 = 0.89 \), is \( 3.7\% \). Hence, the correlation is "significant."

b) Same drill. From the numbers,

\[ r = -0.71 \]

\[ \text{Prob} \left( |r| > r_0 \right) = 19\% \] for \( n = 5 \).

Using the 5% rule, we say that the correlation is not significant. Plots are below.