For each of the following examples, **(a)** Construct a scatter plot, **(b)** Find the correlation coefficient r, **(c)** Find the P-value, and **(d)** Use a significance level of $\alpha = 0.05$ to determine whether evidence supports the claim of a linear correlation.

Ex   Listed below are duration times (sec) and time intervals (min) to the next eruption for randomly selected eruptions of Old Faithful Geyser in Yellowstone National Park. [Triola, 13th Edition 10.1 #14]

Duration (sec)	242	255	227	251	262	207	140
Interval After (min)	91	81	91	92	102	94	91

<u>Ex</u> Listed below are the number of times a cricket chirps in 1 minute and the corresponding temperature in °F (based on data from *The Song of Insects*, by George W. Pierce, Harvard University Press). [Triola, 13th Edition 10.1 #22]

Chirps in 1 minute	882	1188	1104	864	1200	1032	960	900
Temperature (^{c}ircF)	69.7	93.3	84.3	76.3	88.6	82.6	71.6	79.6

Homework: For each of the following problems, **(a)** Construct a scatter plot, **(b)** Find the correlation coefficient r, **(c)** Find the P-value, and **(d)** Use a significance level of $\alpha = 0.05$ to determine whether evidence supports the claim of a linear correlation.

Section 10.1, p. 482: #15, 17, 19, 21, 23, 25