Name: **Date:**

Problem-Based Task: Daytime Trends

Coaching

a. Create a scatter plot for the data.

b. Does a quadratic function or a sine function look like it might be a better fit?

c. Find a quadratic function to model the data.

d. Graph the quadratic function on the scatter plot.

e. Find a sine function to model the data.

f. Graph the sine function on the scatter plot.

g. Which function appears to be a better fit based on the graphs?

h. Calculate the residuals for the quadratic function.

i. Create a residual plot for the quadratic function.

j. Calculate the residuals for the sine function.

k. Create a residual plot for the sine function.

l. Which function appears to be a better fit based on the residuals?

m. Summarize your conclusions.