Project: Meteorology The table shows the monthly normal daily high temperatures (in degrees Fahrenheit) for Phoenix, Arizona (P) and Seattle, Washington (S). In the table, t represents the month, with t = 1 corresponding to January. *(Source: NOAA)*

DATA

Month, t	P	S
1	67.2	47.2
2	70.7	49.9
3	76.9	53.7
4	85.2	58.5
5	94.8	64.7
6	103.9	69.9
7	106.1	75.8
8	104.4	76.3
9	99.8	70.5
10	88.5	59.7
11	75.5	50.9
12	66.0	45.7

(a) Use the *sine regression* feature of a graphing utility to find sine models to fit each set of data.

(b) Use the graphing utility to graph each model from part (a) with the original data. How well does each model fit the original data?

(c) A normal daily high temperature of 66°F is reported. Determine the month(s) in which this temperature is most likely reported in each city, if possible. Explain.

(d) A normal daily high temperature of 75°F is reported. Determine the month(s) in which this temperature is most likely reported in each city, if possible. Explain.