AP Stats Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review 4.1 WS

1. Assume the following data was collected from a chemical reaction where students measured the masses of products at minute intervals (although these students missed some of the intervals):

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Time (min) | 2 | 6 | 7 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| Amount (g) | 3 | 5 | 7 | 10 | 13 | 17 | 21 | 26 | 34 | 50 |

Find the best fit model for the data, showing all scatterplots, residual plots, equations, and analyses used to determine your model:

1. The following table shows the temperature of an instrument compared to the distance from a certain heat source:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Distance (cm) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Temperature (⁰ F) | 130 | 105 | 95 | 87 | 83 | 80 | 78 | 77 |

Find the best fit model for the data, showing all scatterplots, residual plots, equations, and analyses used to determine your model: