Teacher Information *(Continued)*

Activity 6
Warming Up to Heating Curves

Answers to Instructions: Part A

Sample data for this activity is shown in the illustration to the right. Answers to *Part B* are based on this data set; as a result, student responses may vary.

Answers to Instructions: Part B

1. $c = 24.9°C$

2. approach temperature $= 80.0°C$

3. $a = 80.0° - 24.9° = 55.1°C$

5. $b = 0.85$

7. $a = 56.35, \quad b = 0.8469$; yes, the values are consistent.

8. Both equations provide a reasonable fit for the data.

Answers to Questions

1. The value of c affects the starting temperature; a and c together affect the approach temperature.

2. If the value of b were greater than 1, the modeling curve would be concave down and would decrease with time.

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