Math 3 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1-4 Learning Check

Complete the following problems. Enter your answers into the TI-Navigator when you are finished!

1. ****

**Use the below situation for problems 2-5**

According to the United States Bureau of the Census, Wyoming is the least populous state.

Assume the population of Wyoming is changing exponentially, the functionmodels the data for 1980 to 1990, where *t* = years since 1980.

2. Is the population of Wyoming increasing or decreasing from 1980 to 1990? Explain.

3. What is the population of Wyoming in 1980?

4. What was the predicted population of Wyoming in 1984? Round the nearest person.

5. When will the population of Wyoming reach 457,133? Round to three decimal places.

**OVER 🡪**

**Use the below situation for problems 6-8**

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6. Suppose you cook a pizza at . After letting it cool for 5 minutes in a room with air temperature of , the pizza cools to . Use this information to solve for the value of *r* in the function . *Store the value of* ***r*** *in your calculator so you can use it in problems 7 and 8!*

7. If after the cooling period, it takes you 3 minutes to eat the first slice of pizza, what is the temperature of the last bite of that slice?

8. When does the temperature of the pizza fall below?