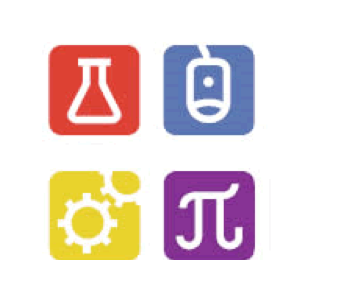
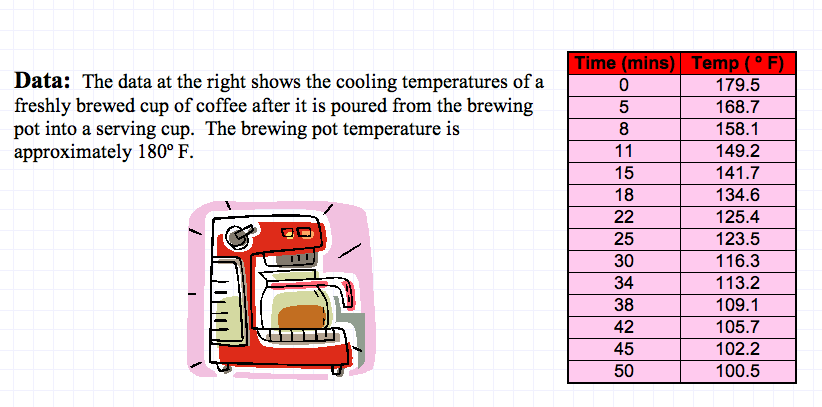
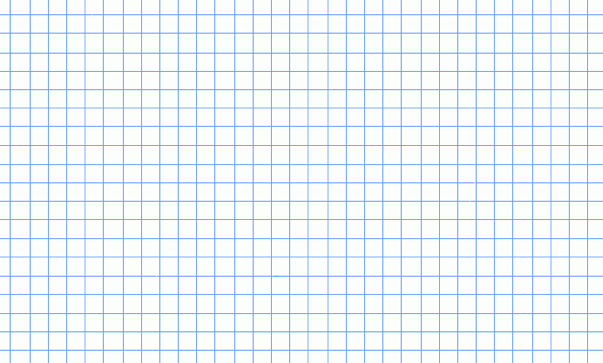
STEM Algebra 2 Hand Warmer PBL



Introduction to Exponential Regression Name:



1. Create a scatterplot of the data in the table:



2. What family function does this look like?

3. Draw an curve that you think best fits the data.

4. Now find the equation for the curve. y = abx with a **GRAPHING CALCULATOR**!

Write down the steps with me….

6. Based on your equation when is the coffee at a temperature of 106 degrees F?

7. What is the predicted temperature of the coffee after 1 hour?

8. In 1992, a woman sued Mc Donald’s for serving coffee at a temperature of 180⁰ F that caused her to be severly burned when the coffee spilled. An expert witness at the trial testified that liquids at 180⁰F will cause a full thickness burn to human skin

in two to seven seconds. It was stated that had the coffee been served at 155⁰ F, the liquid would of cooled and avoided serious burns. The woman was awarded 2.7 million dollars. As a result of this famous case, many restaurants now serve coffee at a temperature around 155⁰ F. How long should restaurants wait (after pouring coffee from the pot) before serving coffee to ensure that the coffee is not hotter than 155⁰ F. Use your equation. Show your work!

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