

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Per.: \_\_\_\_\_

LAB# \_\_\_\_\_

**Coastal and Continental Temperature Ranges**

**Introduction:** There are large variations in average monthly among cities located at the same latitude. This suggests that factors other than the angle and duration of insolation affect rate of heating and cooling of any given location.

**Objective:** You will graph the average monthly temperatures of coastal and inland continental regions and interpret the range in temperatures.

**Vocabulary:**

*temperature range:*

*average daily temperature:*

*average monthly temperature:*

**Procedure:** Graph the average monthly temperatures for the four cities given on the data chart. Plot all four curves on the same set of axes. Please label the axes appropriately. Use a different color for each city and include a key.

**Average Monthly Temperatures (°F)**

	New York NY	Bismarck ND	Los Angeles CA	Phoenix AZ
January	31	4	58	55
February	33	13	60	58
March	45	25	61	62
April	53	43	63	70
May	63	52	66	79
June	72	67	70	88
July	79	71	74	98
August	78	68	75	93
September	70	56	74	87
October	58	44	70	78
November	48	30	63	64
December	36	11	58	54



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**Questions**

1. Based on the temperature curves, how can you tell all these cities are in the northern hemisphere?

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2. Which city has the greatest yearly temperature range? \_\_\_\_\_

3. Explain the cause of the greater range you observed in question 2.

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4. How do the rates of heating and cooling differ for New York and Bismarck?

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5. What is the yearly temperature range for Los Angeles? \_\_\_\_\_

6. What is the yearly temperature range for Phoenix? \_\_\_\_\_

7. Since Los Angeles and Phoenix are at the same latitude, what can you infer about the intensity of insolation at both locations?

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8. Considering the intensity of insolation for Los Angeles and Phoenix, explain the difference in the temperature curves for the two cities.

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9. How does the lack of moisture in California's Mohave Desert cause a large **daily** temperature range?

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10. Describe the difference in the annual temperature range between a coastal region and an inland region.

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