



Name: _____

Date: _____

Student Pre-Test (Middle School)

Introduction

Pretend that you are a travel agent and have been asked to arrange a trip for your class during the month of December. The students have selected two cities (Springfield and Metropolis) and have asked you to make the final choice. Your teacher has only one requirement: **You must select the warmest city.**

Unfortunately, you do not know what the temperature for either of these cities will be. Your teacher has informed you that there is a way to determine the temperature by comparing its location with other cities around the world. Therefore, your first job is to determine the trend. You then contacted some of your friends around the world and asked them to record their temperature over the same week and average it. Each of your friends from the following schools sent this information:

School	City	State	Country	Latitude	Longitude	Temperature (°C)
Pinehurst	Albany	Auckland	New Zealand	-36	174	19
Kippa-Ring		Queensland	Australia	-27	153	25
Mareeba		Queensland	Australia	-17	154	34
Mazapan School	La Ceiba	Atlantida	Honduras	16	-87	26
Kfar-Shmriyau Rispon	Herzelia		Israel	32	35	15
George Washington	Booton	Ohio	USA	41	-81	
Badger Road	Potterville	Alaska	USA	55	-147	0

Students from the George Washington School forgot to average their daily temperature and instead sent you the temperature for each of the five days. This means that you will have to average it and insert it into the table above before you can move to the next step.

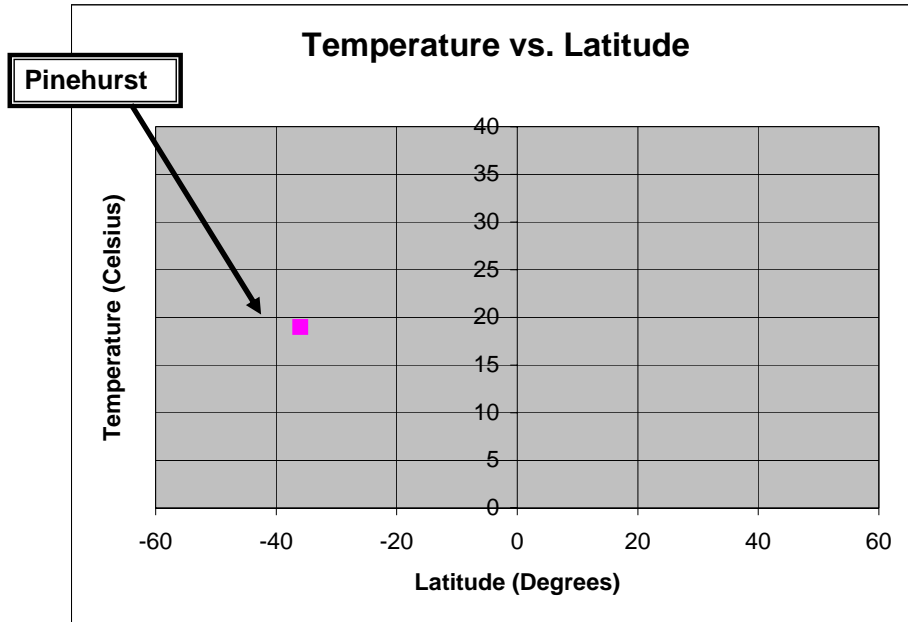
	Monday	Tuesday	Wednesday	Thursday	Friday
Temperature (°Celsius)	4	5	7	3	6

1. What was the Average Temperature for the week? _____ °C

Graph the Results

The next step is to plot the different schools using Latitude and the Temperature in degrees Celsius. Use the graph below to plot all seven schools. One example, the Pinehurst School from New Zealand, has already been completed for you.

GRAPH 1



2. What trend have you noticed? _____

3. Why do you think this is so? _____

Making the Choice

Now that you've determined the trend, you are prepared to decide which of the two choices selected by your class is the warmest. The two cities that were selected are:

City: Springfield
Latitude: 47° North

City: Metropolis
Latitude: 12° South

4. Add these two cities to the graph on the previous page.

Convert North and South into (+) and (-) numbers:

Examples: (1) 47 N = 47 (2) 12 S = - 12

5. Which of the two cities is the warmest? _____

6. What might the temperature be? _____ °C

7. Why? (Please base your answer on information from the graphs above).

Follow-up Questions

Add this city to the graph on the previous page:

City: Millville
Latitude: 5° North
Temperature: 10° Celsius

8. Why do you think this city is different than the others? What are some factors that might affect the temperature?
