Working with Map Algebra

Purpose:
The purpose of the lab assignment is to apply the skills just learned from the tutorial.

Assignment:

1. Consider the fact that climate change will affect different parts of the world in different ways. Some areas will definitely get warmer, but some areas may get colder. You are supplied with a revised equation that predicts the average annual temperature (based on elevation) for the year 2025. The equation is

   Temperature2025 = elevation * -0.0019 + 28.815

   You have already created a temperature map based on elevation. Your job, should you choose to accept it, will be to create a map that depicts temperature in 2025 and then create a map that shows the difference between the temperature now and the temperature in 2025.

2. Create a layout that shows the difference between the predicted temperature in 2025 and now and an elevation map (see attached figure).

3. Draw and label an analytical model (schematic) for the analysis. Map boxes should include the name and units; arrows should have function name above and parameters below.

4. Discuss, in a paragraph or two, the effect of global warming (as depicted by the equation provided) with relation to elevation. Your explanation should demonstrate your understanding of the analyses just conducted.

Deliverables:

1. A sheet with your analytical model (these can be hand drawn or created on MS Word).
2. Your answer to item 4 above should be type written.
3. An image file (png or jpg) or printout of your map.

Hand in hard copies or email files as appropriate.

Due:
Start of next lab period.

Global Warming & Elevation

Temperature Difference (temp2025 - temp now)

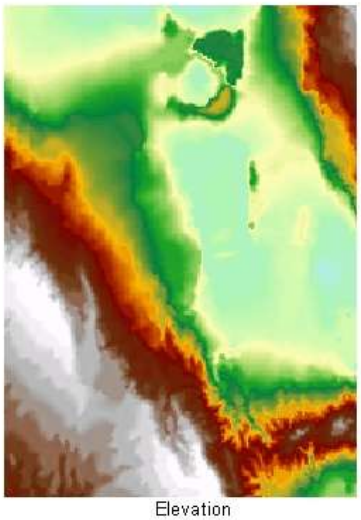
Legend

Global Warming

Value

High : 0.122400

Low : -1.122900



Elevation

Legend

Elevation

Value

High : 9843

Low : 5692

My Name

Date