

Streams and Floods

Esc 115 Physical Geology

Patterns and Predictions

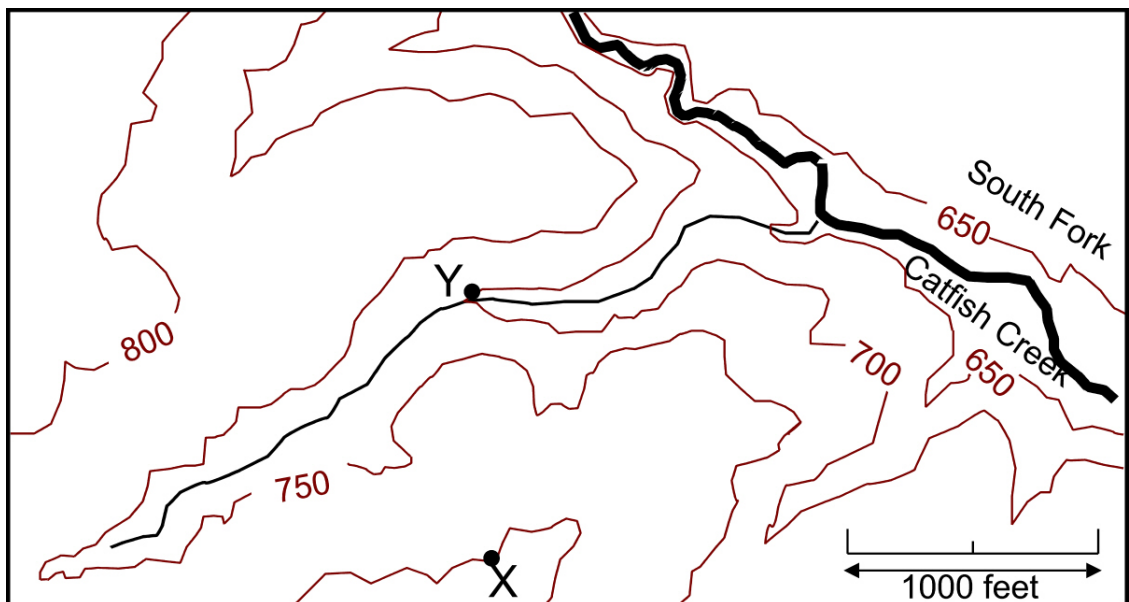
1 Streams and Floods

The first portion of the lab will be turned in today. The second portion of this lab will involve completing an online assignment to be turned in next week.

1.1 In-Class Assignment

1. The figure below is from a small tributary to the South Fork of Catfish Creek. Answer the following questions about the figure:

- (a) The map is contoured in feet. What is the contour interval? _____
- (b) What is the elevation at point X? _____
- (c) What is the elevation at point Y? _____
- (d) What is the distance from point X to Y? _____
- (e) What is the gradient from point X to Y? _____
- (f) Which direction does the tributary flow? _____



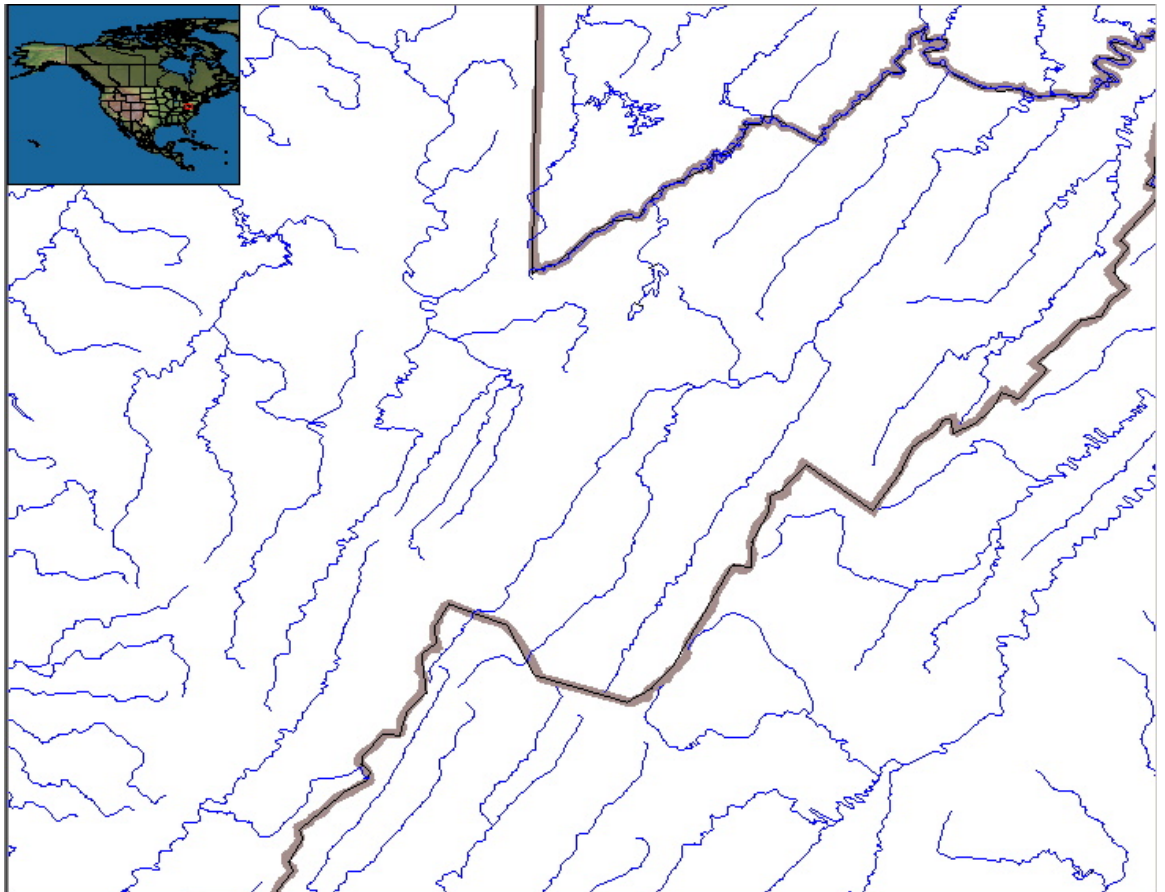
2. The following two maps are from the area where Virginia, West Virginia, and Maryland meet. Use these two maps to answer the following questions.

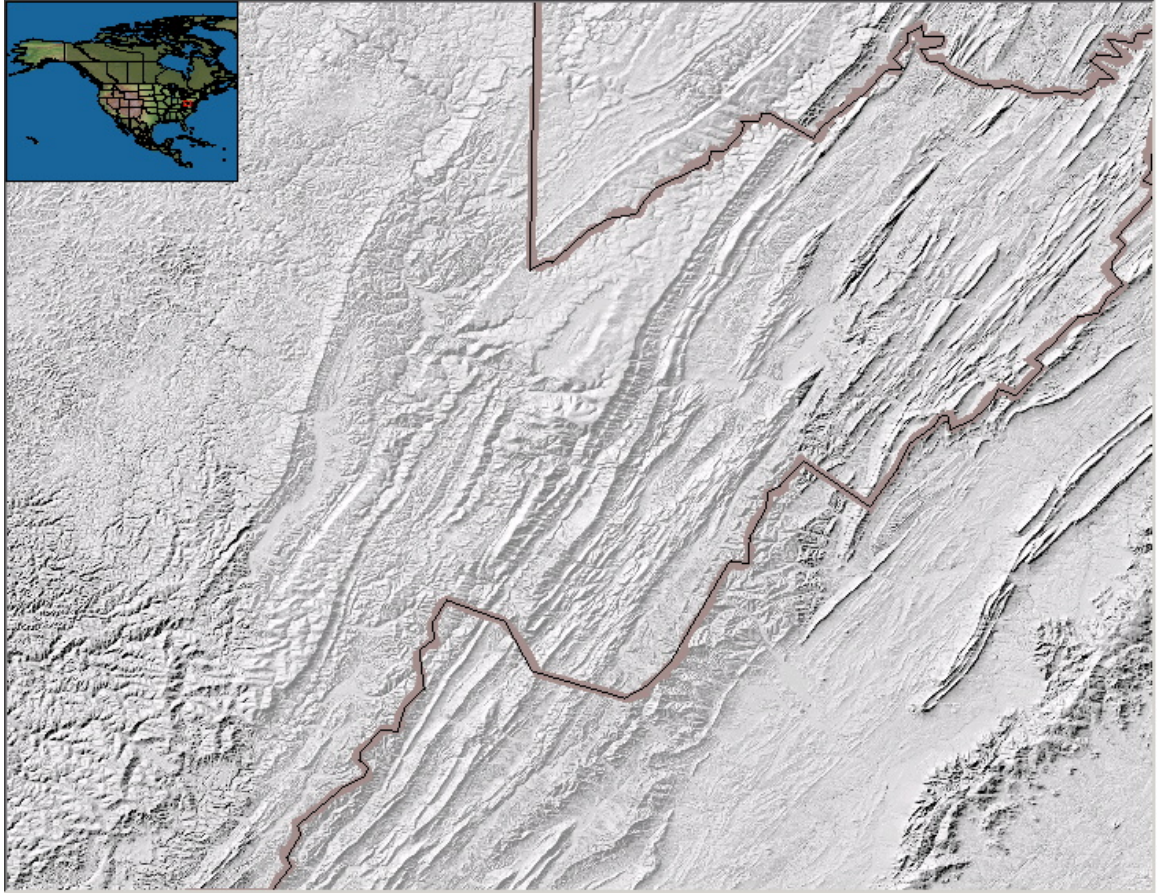
What is the primary drainage pattern in this the northeast section of

West Virginia? Mark on the map a clear example. _____

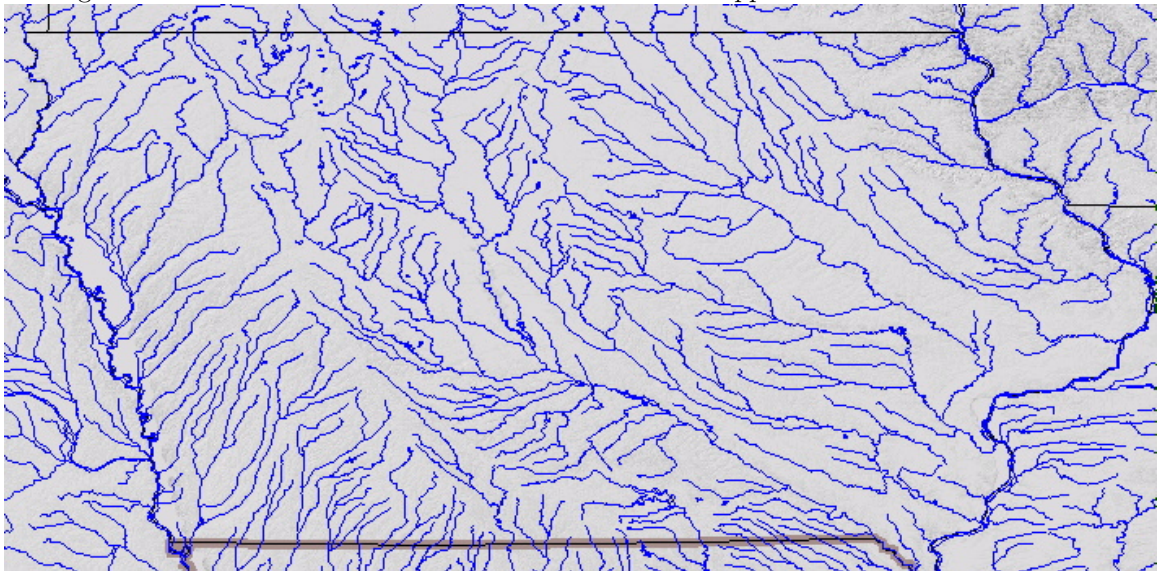
What is the topographic pattern in the same area? What do you think might be causing it?

In the west and northwest portion of the map, the drainage and topography look different. Explain how and why.

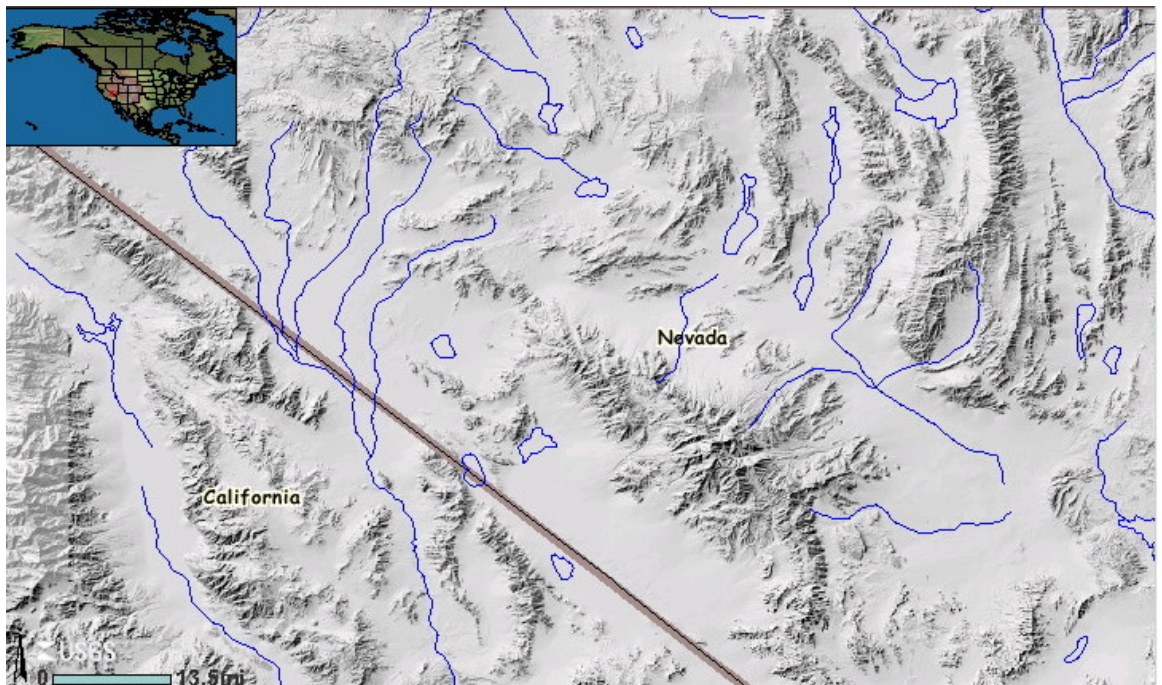
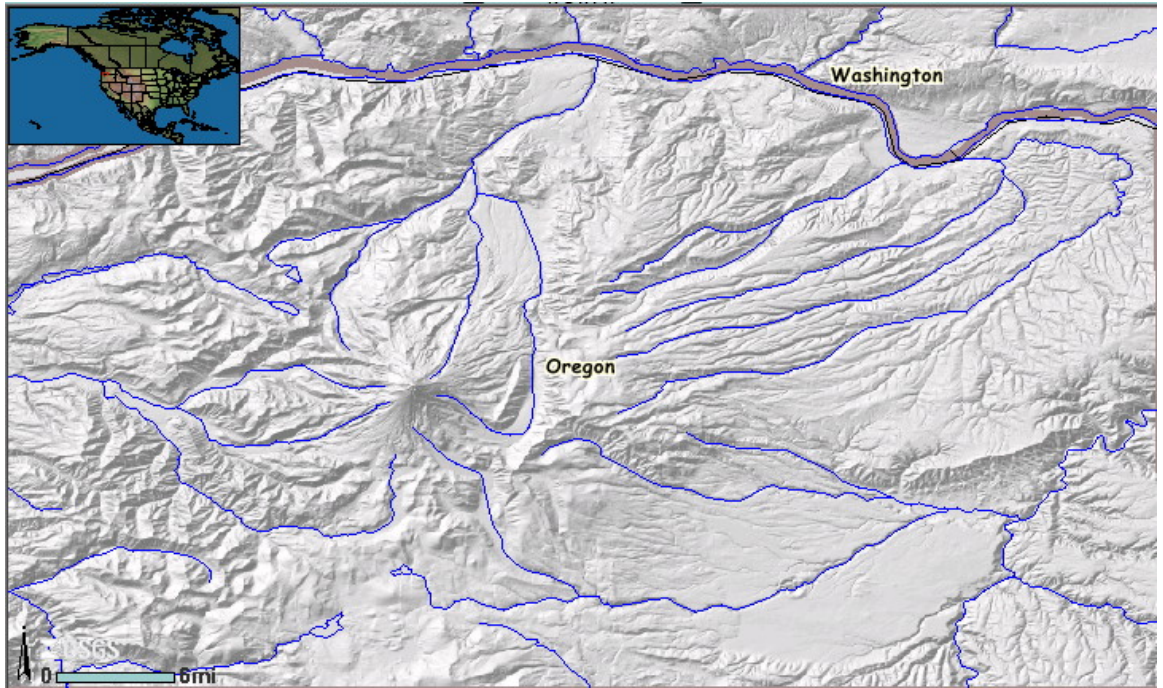




3. The map below shows the streams of Iowa. On the map, sketch the drainage divide between the Missouri River and the Mississippi River.



4. What type of drainage patterns do you see in the figures below? What is controlling the formation of those patterns?



1.2 Online Assignment

This part of the laboratory will be completed online. The certificate described below should be turned in at the beginning of the next lab. To complete the assignment, do the following:

1. Using your web browser, go to <http://www.sciencecourseware.com/>. Click on the *Virtual River* option, then *River Discharge*.
2. Follow the steps for each page. The website is self-contained, with a calculator where needed. You cannot advance to the next page until correctly answering the questions on a given page.
3. Upon successfully completing the entire lab, a page will open that allows you to enter your name and location. A certificate of completion will then be generated with the day's date. Print out this certificate and hand it in for credit for the lab.