

**GLY 1 - Dynamic Earth**  
**Prof. DiVenere**  
**November 30, 2011**

**Assignment 7 - Due Wednesday, Dec. 7.**

- A) Read Chapter 9 on Streams (Running Water) and review the class notes and slides.
- B) Answer questions on p. 236-237:  
1  
2 (show your work)  
3  
5
- C) Draw simple, 2-d sketch profiles of  
- a youthful stream valley  
- a mature stream valley
- D) Draw a sketch of a stream in a mature stream valley surrounded by uplands outside the stream valley showing the upland, the valley walls, the flood plain, and the stream channel.  
- sketch in the water surface in the stream  
- sketch in the water table and label it (assume the region has plentiful rainfall)  
- sketch flow lines with arrows to the direction that groundwater flows
- E) A stream with an approximately rectangular cross-section has a width of 30 ft, an average depth of 6 ft, and velocity of 2 feet per second.  
- calculate the **discharge** (show your work with proper units)  
- if the depth increases to 8 ft following a period of rain, will the velocity change?  
Explain