PS 100
Experiment 14 Chapter 30
Date $\qquad$

Name (print) $\qquad$ NetID $\qquad$ Section $\qquad$ TA $\qquad$
Title: Relative dating.
Objectives: Use the principles of relative dating as your starting point (the" if" part of the reasoning process) and come to correct conclusions about the relative ages of rock layers.

Instructions: Look at the pictures below, and take a walk over to the JFSB courtyard.

1. Below is a picture taken at the mouth of rock canyon.

A) Explain how you can tell the relative age of the quartzite and tillite. What principle of relative dating are you starting from? What measurement/observation are you making? What can you conclude?
B) The yellow line is called an unconformity. What is significant about the boundary indicated by the yellow line? What can you conclude about how much older the Tillite is?

2. In the cross section to the left, use the principles of relative dating to put the rock layers and faults in the correct order.
A) What are the youngest and oldest items?
B) How can you tell the relative age of layers $G$ and E? What about fault 2 and G? Can you tell the relative age of fault 2 and $E$ ?
3. In the courtyard of the new Joseph F. Smith building, there are large pieces of granite in a fountain. How does the age of the dark parts of the rock compare to that of the lighter grey. How can you tell the difference between rock that crosscuts and an inclusion?

I personally participated in the activity and wrote the response in my own words:
Signature: $\qquad$

