Earth Science Midterm Review

Unit 1: Maps and Measurements

1. What are the pieces of evidence for the Big Bang Theory?
2. What is an observation?
3. What is an inference?
4. A city in NYS has an altitude of Polaris to be 43.5°. What is the latitude of this city and what is the name of the city?
5. How are latitude/longitude lines drawn the earth (equatorial view and polar view)?
6. Determine the latitude and longitude of Ithaca.
7. What is a topographic map? What does it show?
8. What are hatchured lines?
9. Use the map below to determine:



Direction of flow for Maple Stream:

Elevation of location Y:

The highest point on Holland Hill:

The contour interval:

Unit 2: Minerals and Rocks

1. Identify a mineral that has non-metallic luster and can have the shape of little cubes.
2. How do we determine luster, breakage, streak and *hardness?*
3. What are the characteristics of an intrusive/extrusive igneous rock?
4. How do the different types of sedimentary rocks form?
5. What does the word monominerallic mean?
6. Why goes gneiss have a distorted structure (think about how it forms…)?
7. How are rock classified?
8. What is the main idea of the rock cycle?

Unit 3: Dynamic Earth

1. At a depth of 5000km, what it the temperature and pressure?
2. What are the layers of the internal earth? Then determine their properties (density/ temperature/ composition).
3. Why do convections currents occur?
4. What are the pieces of evidence for the Theory of Continental Drift?
5. What are the properties of p-waves and s-waves (travel speed, what parts of earth they travel through or not)?
6. What causes a tsunami?
7. How many seismic stations are needed to determine the epicenter?
8. The seismogram below shows *P*-wave and *S*-wave arrival times at a seismic station following an earthquake.



Determine the distance from this seismic station to the epicenter of the earthquake.