Earth Science Overview:

1. Earth's four major spheres are the _____

- a. Hydrosphere, atmosphere, geosphere, and biosphere
- b. Hydrosphere, atmosphere, lithosphere, and biosphere
- c. Hydrosphere, asthenosphere, lithosphere, and biosphere
- d. Hydrosphere, geosphere, lithosphere, and asthenosphere

2. Earth is considered a system because all of its parts _____

- a. Represent separate closed systems
- b. Interact

- c. Were formed at the same time
- d. Are powered by the same energy sources

3. Create a list of the four earth spheres and list three (3) areas of scientific study for each.

| Earth's Sphere | Areas of Scientific Study |
|----------------|---------------------------|
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Mapping:

4. On the global grid, the prime meridian is at _____

- a. 0 degrees latitude
- c. 90 degrees latitude
- b. 0 degrees longitude
- d. 90 degrees longitude

5. On a topographic map, contour lines that are closer together indicate ______.

- a. Forest c. A steeper slope
- b. A mountain top d. Roads

6. What locations have the same elevation?





- a. A and E
- b. C and I
- c. D and H
- d. B and D

7. What is the approximate gradient between X and Y?



Use the following map below to answer the next seven (7) questions.



- 8. What is located at 49° N latitude and 12° E longitude?
- 9. What two places are located at 15° E latitude? ______; _____; _____;
- 10. The city of Newton is located at ______° N and ______° E
- **11.** The city of Wittletown is located at ______° N and ______° E
- **12.** What is located at 51° N latitude and 10° E longitude?
- **13.** Lines of latitude run ______ and _____ parallel to the equator.
- **14.** Lines of longitude run east and west of the _____





- 22. In scientific inquiry, when competing hypotheses have been eliminated, a hypothesis may be elevated to the status of a scientific ______.
 - a. Estimate c. Theory
 - b. Idea d. Truth
- 23. A Horticulturist wants to determine if fertilizer speeds the growth of her tomato plant. She applies one teaspoon of fertilizer a month to one plant for one year, and none to the other over the same time span. Both plants are placed in under the same growing conditions including soil, access to sunlight and amount of water. What was the dependent variable in the experiment?
 - a. The fertilizer

- c. The sunlight access
- b. The rate of growth
- d. The ambient temperature
- 24. In the classroom during a visual inspection of a rock, a student recorded four statements about the rock. Which statement about the rock is an observation?
 - a. The rock was from the Precambrian Era
 - b. The rock formed deep underground
- 25. Using the bar graph to the right, answer the following questions:
 - a. What percent of ketchup is sugar?
 - b. Which foods would you group as the most sugary?



c. The rock is black and shiny

d. The rock cooled very rapidly

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26. Read and record the volume (with correct unit) of each graduated cylinder:



27. Read and record the length (with correct unit) on the ruler:



28. Read and record the mass (with correct unit) on each triple beam balance:

