

Directed Reading Chapter 8 Section 2

Section: Earthquake Measurement

LOCATING EARTHQUAKES

Match the correct definition with the correct term. Write the letter in the space provided.

- | | |
|---|----------------|
| _____ 1. the point on Earth's surface directly above an earthquake's starting point | a. seismograph |
| _____ 2. instrument that records vibrations in the ground and determines the location and strength of an earthquake | b. seismogram |
| _____ 3. tracing of earthquake motion that is detected by a seismograph | c. epicenter |
| _____ 4. the point in Earth's interior where an earthquake begins | d. focus |

5. Name two uses for seismograms.

6. Perhaps the simplest method seismologists use to find an earthquake's epicenter is the _____.

7. The first step in finding an earthquake's epicenter is to collect several _____ from different seismographic stations.

8. By using a time-distance graph, a seismologist can find the distance from each station to the earthquake's _____.

9. If you know the distance from the epicenter to three stations, how could you find the location of the epicenter?

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MEASURING EARTHQUAKE STRENGTH AND INTENSITY

- _____ 10. Seismograms are used to find out an earthquake's
- a. hazard.
 - b. depth.
 - c. damage.
 - d. strength.
- _____ 11. What is the Richter magnitude scale used to measure?
- a. the epicenter of an earthquake
 - b. the focus of an earthquake
 - c. the strength of an earthquake
 - d. the intensity of an earthquake
- _____ 12. What is a measure of the strength of an earthquake called?
- a. magnitude
 - b. intensity
 - c. velocity
 - d. Richters
- _____ 13. How many times stronger is an earthquake with a magnitude of 5.0 than an earthquake with a magnitude of 4.0?
- a. 1
 - b. 5
 - c. 10
 - d. 100
- _____ 14. The degree to which people feel an earthquake and the amount of damage it causes is called
- a. magnitude.
 - b. intensity.
 - c. velocity.
 - d. Richters.
- _____ 15. What is the highest intensity level on the Modified Mercalli Intensity Scale?
- a. I
 - b. V
 - c. X
 - d. XII
- _____ 16. The lowest level of intensity on the Modified Mercalli Intensity Scale describes an earthquake
- a. not felt by most people.
 - b. not detected by seismographs.
 - c. with great damage.
 - d. with fires.

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17. How is the Richter magnitude scale used to find the strength of an earthquake?

18. Where are intensity values of an earthquake usually highest?
