

Directed Reading A

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?

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 4.0? _____ 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 Scale describes an earthquake _____.

- a. not felt by most people.
- b. not detected by seismographs.
- c. with great damage.
- d. with fires.