Locating Earthquake Epicenters

Finding the Epicenter

- A technique called **triangulation** is employed to find an earthquake's epicenter.
- First, the distance of each seismograph from the epicenter is determined by the arrivals of the P-waves and S-waves.
- After the distances have been recorded, circles are drawn from the seismographs, each with a radius of the distance from the epicenter.
- All three of the drawn circles should intersect at a certain point, which is the epicenter of the earthquake.

Study Tip

Three circles drawn from three seismic stations, each with a radius of the distance from the epicenter to the station, can pinpoint where an epicenter is.

Concept Check

- Why do you need three seismographs to determine where an epicenter is?
- Why wouldn't two seismographs work?