



# Earth Science Worksheet

Assignment # \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## *The Richter Scale*

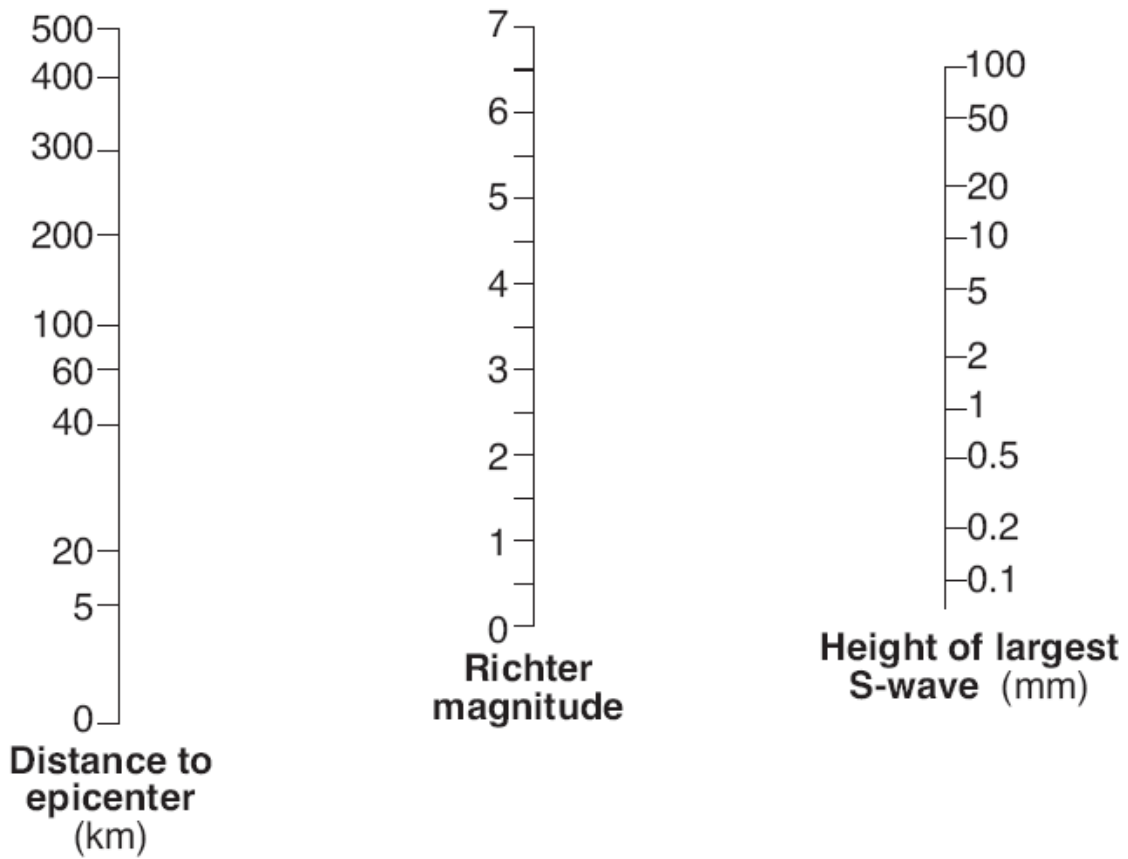
Directions for questions 1-4: Use the information below and the Richter Nomograms to fill in the chart.

1. A seismic station located 60 km from the epicenter of an earthquake, recorded the maximum height of the S-waves to be 50 mm. What was the Richter magnitude of this earthquake?
2. An earthquake with a Richter magnitude of 6.0 caused an S-wave of 20 mm to be recorded on a seismograph. How far from the epicenter was the seismograph?
3. What would be the maximum height of an S-wave, if an earthquake with a Richter magnitude of 1.5 was detected at a distance of 5 km. from the epicenter?
4. What magnitude earthquake would produce an S-wave of 1.0 mm at a distance of 100 km. from the epicenter?

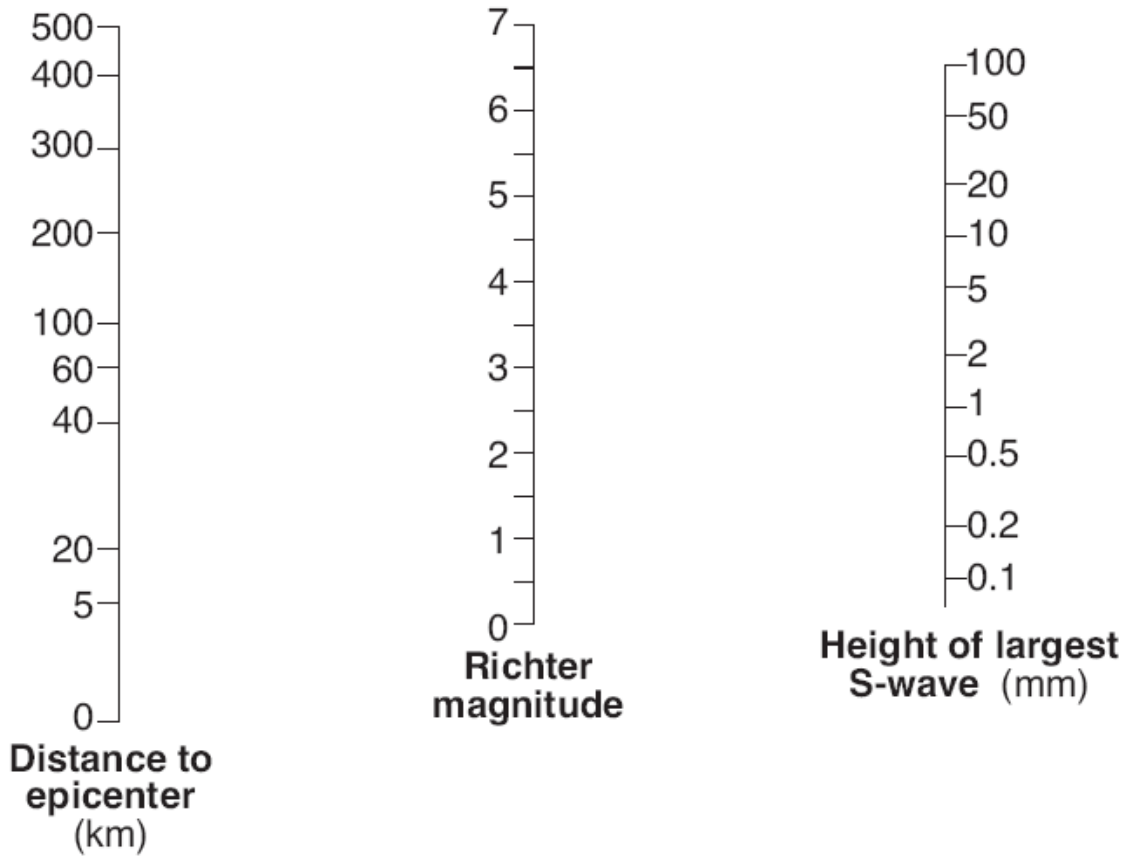
Question	Distance to Epicenter (km.)	Richter Magnitude	Height of S-wave (mm.)
1			
2			
3			
4			

5. Using the handout on the Richter Scale, list the observable results of the earthquake in question #1.

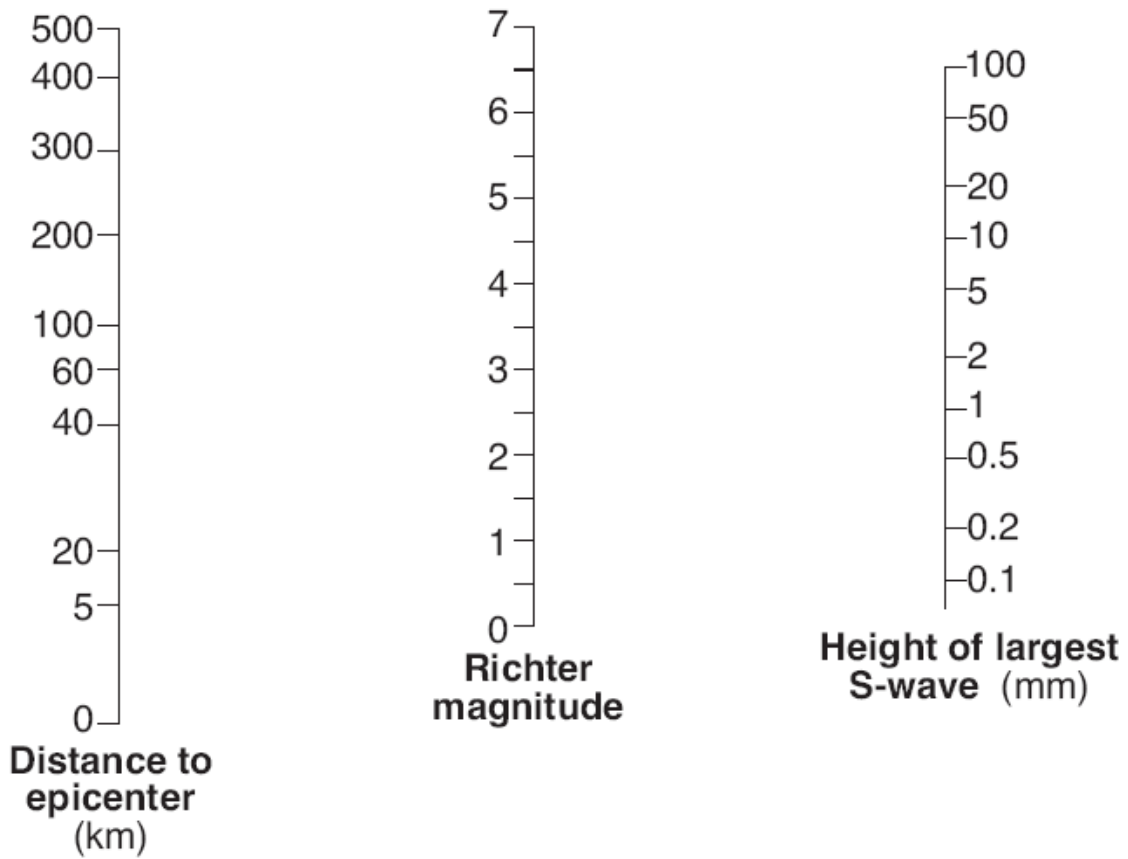
1.



2.



3.



4.

