Name_____

Date_____

Hour_____

Epicenter Lab

Directions: Use the attached graph to determine distance each seismometer is from the epicenter. Use the scale of 1cm=100km. Complete the chart for each epicenter problem.

1.

Station Number	S-P Lag Time (s)	Distance to epicenter in (km)	Scale distance to epicenter in (cm)
1	**36**		
2	**56**		
3	**30**		

X2

x1

x3

2.

Station Number	S-P Lag Time (s)	Distance to epicenter in (km)	Scale distance to epicenter in (cm)
1	**60**		
2	**84**		
3	**72**		

X1

x2

x3

Follow –up Questions:

1) What do the three numbers represent on the inside of each circle?

_____

_____

_____

2) What do the circles that you drew around each number represent?

_____

_____

_____

3) How many seismic stations are necessary to locate the epicenter of an earthquake?

_____

_____

4) Look at your answer to question 3 and tell me why you need that many seismic stations to locate the epicenter (why can't you have less than that)?

_____

_____

_____

Fill in the blanks to complete the paragraph below.

5) The S - P wave lag time gives the _____ the earthquake epicenter is to that seismic station but not the _____. Therefore, in order to locate the epicenter of an earthquake you need the _____ of the distances from at least _____ seismic stations.