

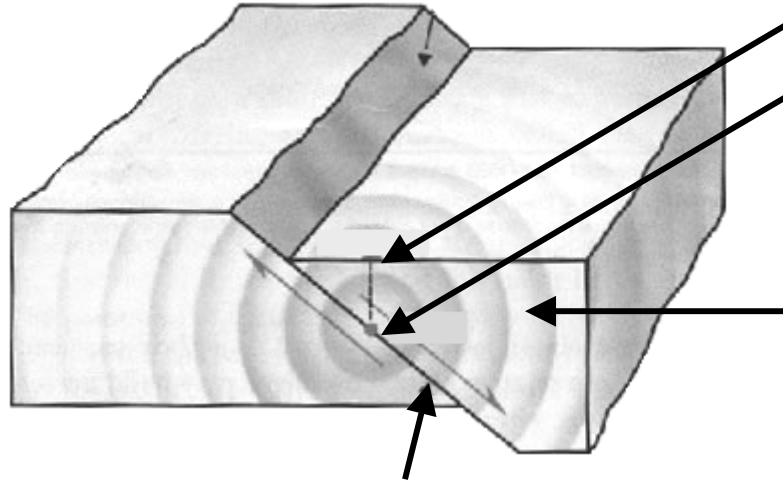
Name \_\_\_\_\_

Date \_\_\_\_\_

### Notes: Earthquakes and Volcanoes

#### Analyzing Seismic Waves

Fault \_\_\_\_\_



Seismic Wave \_\_\_\_\_

| Wave | Velocity (km/sec) | Nature of the Wave |
|------|-------------------|--------------------|
|      |                   |                    |
|      |                   |                    |

What should happen to the time gap (lag) between the P and S wave as they travel? \_\_\_\_\_

#### Seismic Wave Graph Problems

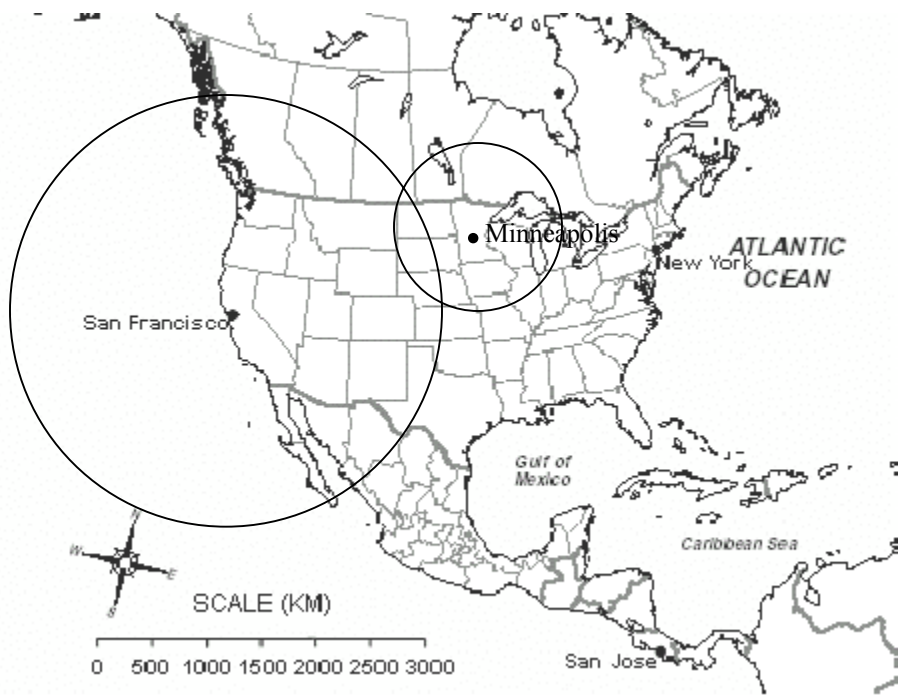
P. \_\_\_\_\_ of the ESRT can be used to solve these examples

1. Each space of the time axis is equal to \_\_\_\_\_
2. Each space on the distance axis is equal to \_\_\_\_\_
3. How long would it take a P wave to travel 5200km? \_\_\_\_\_
4. How long would it take an S wave to travel 5200km? \_\_\_\_\_
5. What is the lag for a recording station that is 5200km from an earthquake's epicenter? \_\_\_\_\_
6. If a P wave took 4:20 to reach a recording station how far did it travel? \_\_\_\_\_
7. If an S wave took 2:40 to reach a recording station how far did it travel? \_\_\_\_\_
8. If a P wave arrived at 3:56:10 and an S wave arrived at 3:57:50 what is the lag? \_\_\_\_\_
9. How far away from the epicenter was this recording station? \_\_\_\_\_
10. If a P wave arrived at 15:22:30 and an S wave arrived at 15:26:20 what is the lag? \_\_\_\_\_
11. How far away from the epicenter was this recording station? \_\_\_\_\_

Use the seismograph and map below to complete the chart and locate the epicenter



| P Wave Arrival Time | S Wave Arrival Time | Lag Time | Distance to Epicenter | P Wave Travel Time | Origin Time |
|---------------------|---------------------|----------|-----------------------|--------------------|-------------|
|                     |                     |          |                       |                    |             |



This is how the epicenter of an earthquake can be located:

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These are some things I learned, questions I have, or thoughts about the lesson:

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