Notes: Earthquakes **Name: _____**

I. An earthquake is…

_____

_____

A. **Earthquakes can be caused by**:

1. _____
2. _____
3. _____
4. _____ built up along boundaries_____

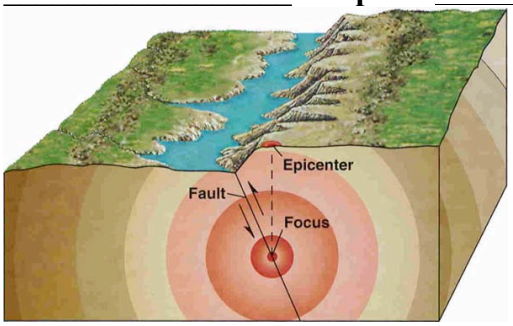
II. **A fault is**…

_____

A. **Friction between plates prevents them from moving**, so strain builds up. **The rock deforms**. Eventually, the strain becomes great enough that the rock moves, and returns to normal shape. This causes an earthquake (_____).

III. _____: the **point at which the rock first breaks** and moves in an earthquake.
Below the surface **(Remember: "Deep in Focus")**

_____: the **point on the earth's surface directly above the focus**.



IV. Seismic Waves

A. The energy released in an earthquake travels in waves. **There are three types of seismic waves**:

V. Primary Waves

→ Called _____

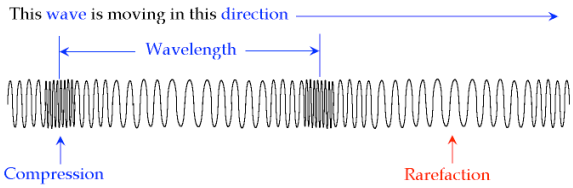
→ Compression waves **squeeze and stretch** rock

_____

→ Can **travel through any material**

_____

→ Travel the _____



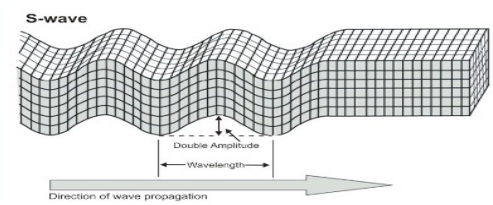
VI. **Secondary Waves**

→ _____

→ _____

→ Can travel **only** through _____
(**not** through liquids or gasses)

→ Travel a little more than



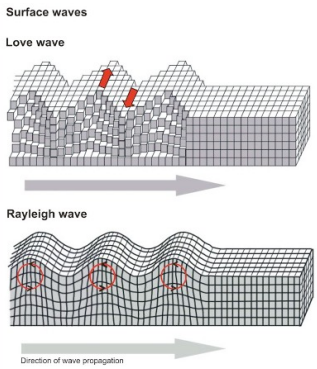
VII. Surface Waves

→ **Seismic waves** that _____

→ When **P and S waves reach the surface** they make _____

→ Two types: _____

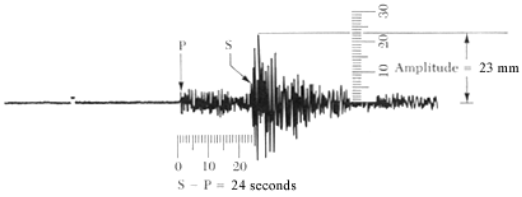
→ _____



VIII. Locating Earthquakes

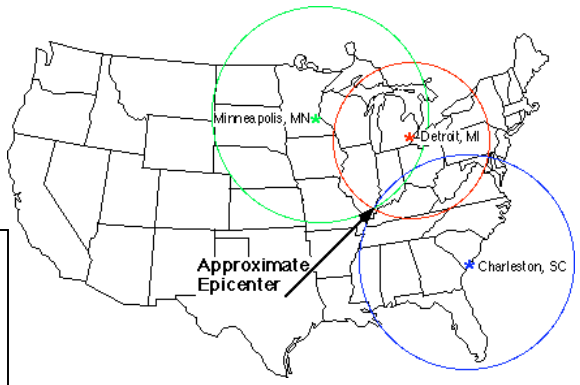
Seismograph: _____

Seismogram: _____



The S-P Time Interval is the _____

_____



Triangulation:

Using the _____

_____

_____

_____

_____

_____

_____

***Because **P waves and S waves travel at different speeds**, the difference in their arrival times can be used to determine the DISTANCE away an earthquake occurred.

IX. Earthquake Magnitude: _____

Measured by the _____ by Charles Richter,
Each increase in number represents 10X (ten times) an increase in power.
Example: _____

X. Earthquake Hazards:

Fire:

_____,
Many utility lines and roads get damaged.

Liquefaction:

_____

Tsunamis:
Are caused by _____ that make a big wave.