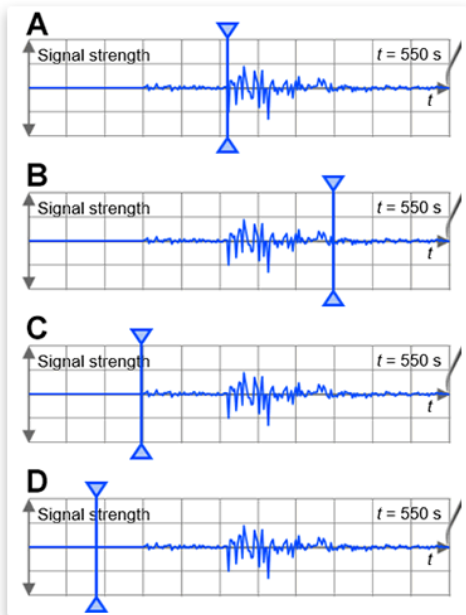


GIZMO: EARTHQUAKE W.S.

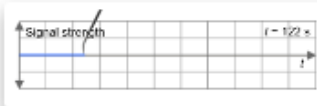
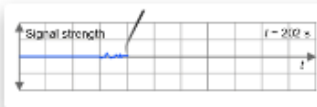
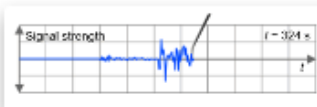
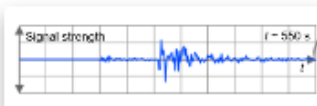
1. In which seismogram is the time probe placed at the beginning of the P-waves?



- A. Seismogram A
- B. Seismogram B
- C. Seismogram C
- D. Seismogram D

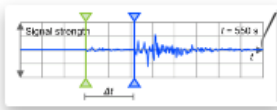
2. Suppose that an earthquake has just occurred, as pictured below. The first P-wave is shown as the larger circle (the purple one) and the first S-wave is shown as the smaller circle (the green one). What would the seismogram in Recording Station A display at the moment the image below was taken?



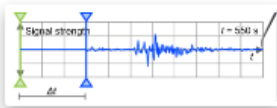
- A. 
- B. 
- C. 
- D. 

3. Which of the following has the two vertical probes in the proper positions to find the correct value for Δt ?

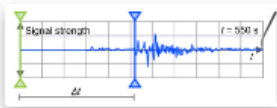
A.



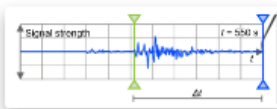
B.



C.



D.



4. An earthquake has just occurred. Seismic waves from the earthquake are detected at two recording stations. At Recording Station A, $\Delta t = 45\text{s}$. At Recording Station B, $\Delta t = 100\text{s}$. Which recording station is farther away from the epicenter?

- A is farther from the epicenter than B.
- B is farther from the epicenter than A.
- A and B are the same distance from the epicenter.
- Cannot be determined.

5. Suppose that Recording Station N is located 200 km north of the epicenter of an earthquake, and Recording Station S is located 100 km south of the epicenter of the same earthquake. Which of the following statements would be true?

- At Recording Station S, the S-wave would arrive before the P-wave.
- The P-wave would arrive at Recording Station N before it would arrive at Recording Station S.
- The value of Δt at Recording Station N would be greater than Δt at Recording Station S.
- The value of Δt at Recording Station N would be less than Δt at Recording Station S.

6. Two different recording stations have found that they had the same value for ΔT after an earthquake. If this is all the information they have so far, what can they conclude?

- The epicenter is exactly halfway between the two recording stations.
- The epicenter is the same direction from both recording stations.
- The epicenter is the same distance from both recording stations.
- They know nothing about the location of the epicenter until they have data from one more recording station.

7. Recording station X has determined that the epicenter of a recent earthquake was 250 km away. No information is available yet from any other recording stations. What can you conclude about the location of the epicenter?

- The epicenter was located somewhere on a circle centered at Recording station X, with a radius of 125 km.
- The epicenter was located somewhere on a circle centered at Recording station X, with a radius of 250 km.
- The epicenter was located somewhere on a circle centered at Recording station X, with a radius of 500 km.
- You know nothing about the location of the epicenter until there is data from at least three different recording stations.