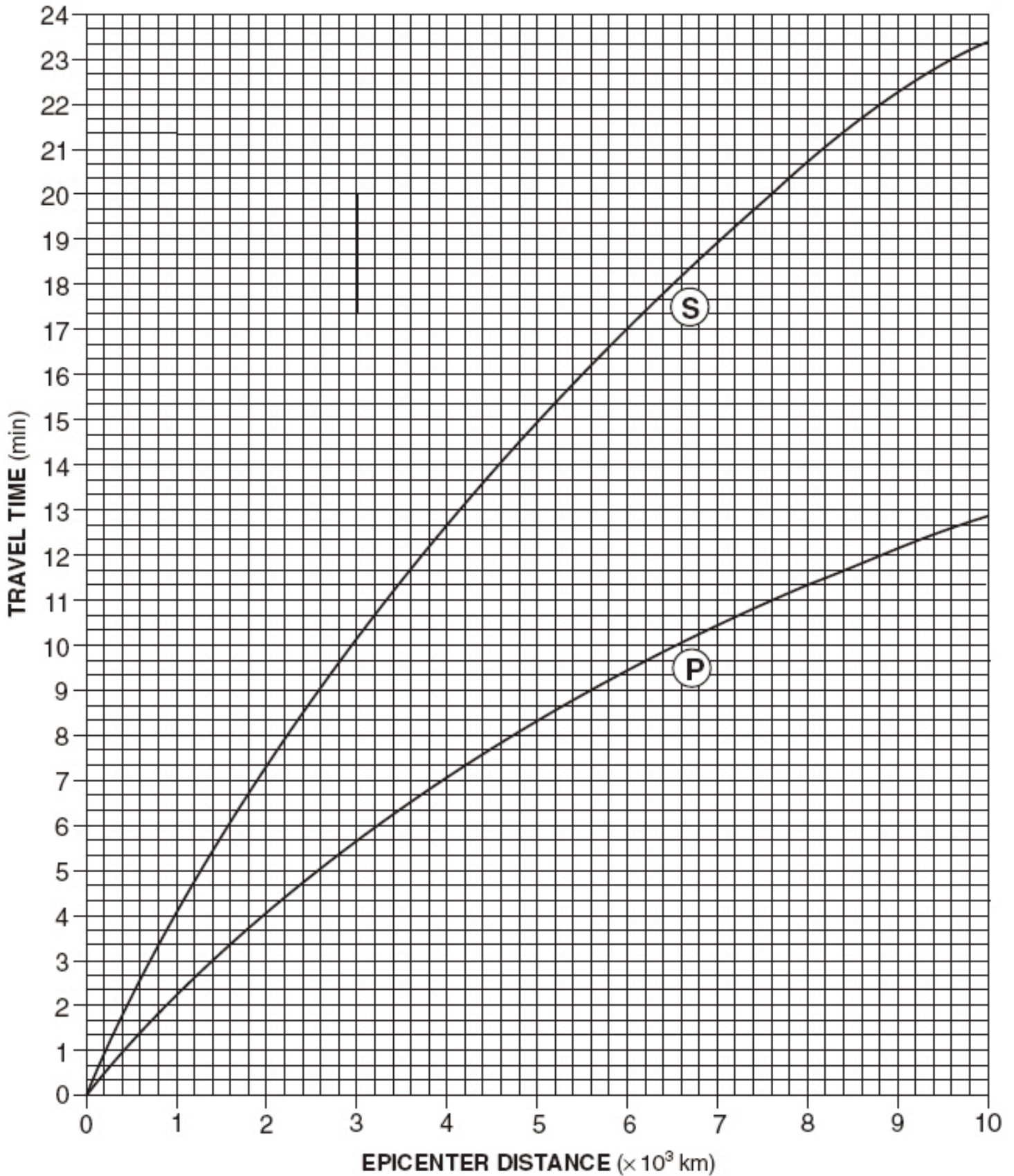


# Determining "P" and "S" Waves Practice

Name: \_\_\_\_\_

## Earthquake P-Wave and S-Wave Travel Time



## Questions & Analysis:

1. Determine the distance between an earthquake and a seismic station if the first "S-Wave" arrives 3 minutes after the first "P-Wave".
2. What is the distance if the first "S-Wave" arrives 5 minutes after the first "P-Wave"?
3. If the seismic station is 2500km from the earthquake's epicenter, approximately when will the first "P-Wave" be received? When will the first "S-Wave" be received?
4. What is the difference in the travel times of the first "P-Wave" and the first "S-Wave" if the seismic station is 1000km from the earthquake center?
5. An "S-Wave" travel time is 4 minutes. How far does this "S-Wave" travel in this time?
6. How long does it take a "P-Wave" to travel 5000km?
7. How far does an "S-Wave" travel in 16 minutes?
8. If an earthquake's "P-Wave" travels 8000km and arrives at a seismic station at 11:40am, what is the origin time of the earthquake?
9. If an earthquake's "P-Wave" arrives at 12:00pm and travels 6000km, what time will the "S-Wave" arrive?
10. If the "S-Wave" arrival time is 10:10:00 and the "P-Wave" arrival time is 10:07:40, what is the epicenter distance?
11. If the "S-Wave" arrival time is 20:08:00 and the "P-Wave" arrival time is 20:00:20, what is the epicenter distance?