## **Earthquake Station**

- 1. Refer to the data table and use the difference in arrival times to determine the distance to the earthquake epicenter for Station 2.
- 2. Analyze the seismogram below and fill out the missing information for Station 3 in the data table.
- 3. Use a compass to draw circles on the map around Stations 2 and 3 according to the distance data.
- 4. Place an "X" at the position of the earthquake epicenter on the map.



Seismograph Station	Arrival	Arrival Times		Distance to Epicenter
	P wave	S wave	Arrival Times	(km)
2	11:35:50 a.m.	11:37:55 a.m.	2 min 55 sec	
3			min sec	





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Seismograph Station	Arrival	Times	Difference in Distance to E	
	P wave	S wave	Arrival Times	(km)
2	11:35:50 a.m.	11:37:55 a.m.	2 min 55 sec	1700 km
3	11:41:00 a.m.	11:48:10 a.m.	7 min 10 sec	5500 km

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Seismograph	Arrival Times		Difference in Distance to Epicer	
Station	P wave	S wave	Arrival Times	(km)
2	03:21:00 a.m.	03:25:10 a.m.	4 min 10 sec	
3			min sec	





Seismograph Station	Arrival	Times	Difference in	Distance to Epicenter
	P wave	S wave	Arrival Times	(km)
2	03:21:00 a.m.	03:25:10 a.m.	4 min 10 sec	2700 km
3	03:22:00 a.m.	03:26:50 a.m.	4 min 50 sec	3300 km

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Seismograph	Arrival	Times	Difference in Distance to Epicer	
Station	P wave	S wave	Arrival Times	(km)
2	08:15:35 p.m.	08:20:05 p.m.	4 min 30 sec	
3			min sec	





Seismograph Station	Arrival	rrival Times Difference in		Distance to Epicenter	
	P wave	S wave	Arrival Times	(km)	
2	08:15:35 p.m.	08:20:05 p.m.	4 min 30 sec	3000 km	
3	08:14:00 p.m.	08:17:30 p.m.	3 min 30 sec	2200 km	

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Seismograph	Arrival	Times	Difference in Distance to Epic	
Station	P wave	S wave	Arrival Times	(km)
2	04:54:30 p.m.	04:59:30 p.m.	5 min 00 sec	
3				





Seismograph	Arrival	Times	mes Difference in Distance	
Station	P wave	S wave	Arrival Times	(km)
2	04:54:30 p.m.	04:59:30 p.m.	5 min 00 sec	3400 km
3	04:53:00 p.m.	04:56:50 p.m.	3 min 50 sec	2400 km

## **Earthquake Station**

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- 4. Place an "X" at the position of the earthquake epicenter on the map.



Seismograph	Arrival	Arrival Times		Distance to Epicenter
Station	P wave	S wave	Arrival Times	(km)
2	02:19:40 p.m.	02:24:00 p.m.	4 min 20 sec	
3			min sec	





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Seismograph	Arrival	Times	Difference in Distance to Ep	
Station	P wave	S wave	Arrival Times	(km)
2	02:19:40 p.m.	02:24:00 p.m.	4 min 20 sec	2800 km
3	02:22:00 p.m.	02:28:10 p.m.	6 min 10 sec	4500 km

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- 3. Use a compass to draw circles on the map around Stations 2 and 3 according to the distance data.
- 4. Place an "X" at the position of the earthquake epicenter on the map.



Seismograph	Arrival	Times	Difference in Distance to Ep	
Station	P wave	S wave	Arrival Times	(km)
2	01:32:00 p.m.	01:35:50 p.m.	3 min 50 sec	
3			min sec	





Seismograph	Arrival	Times	Difference in	Distance to Epicenter
Station	P wave	S wave	Arrival Times	(km)
2	01:32:00 p.m.	01:35:50 p.m.	3 min 50 sec	2400 km
3	01:33:00 p.m.	01:37:30 p.m.	4 min 30 sec	3000 km