

Name: _____

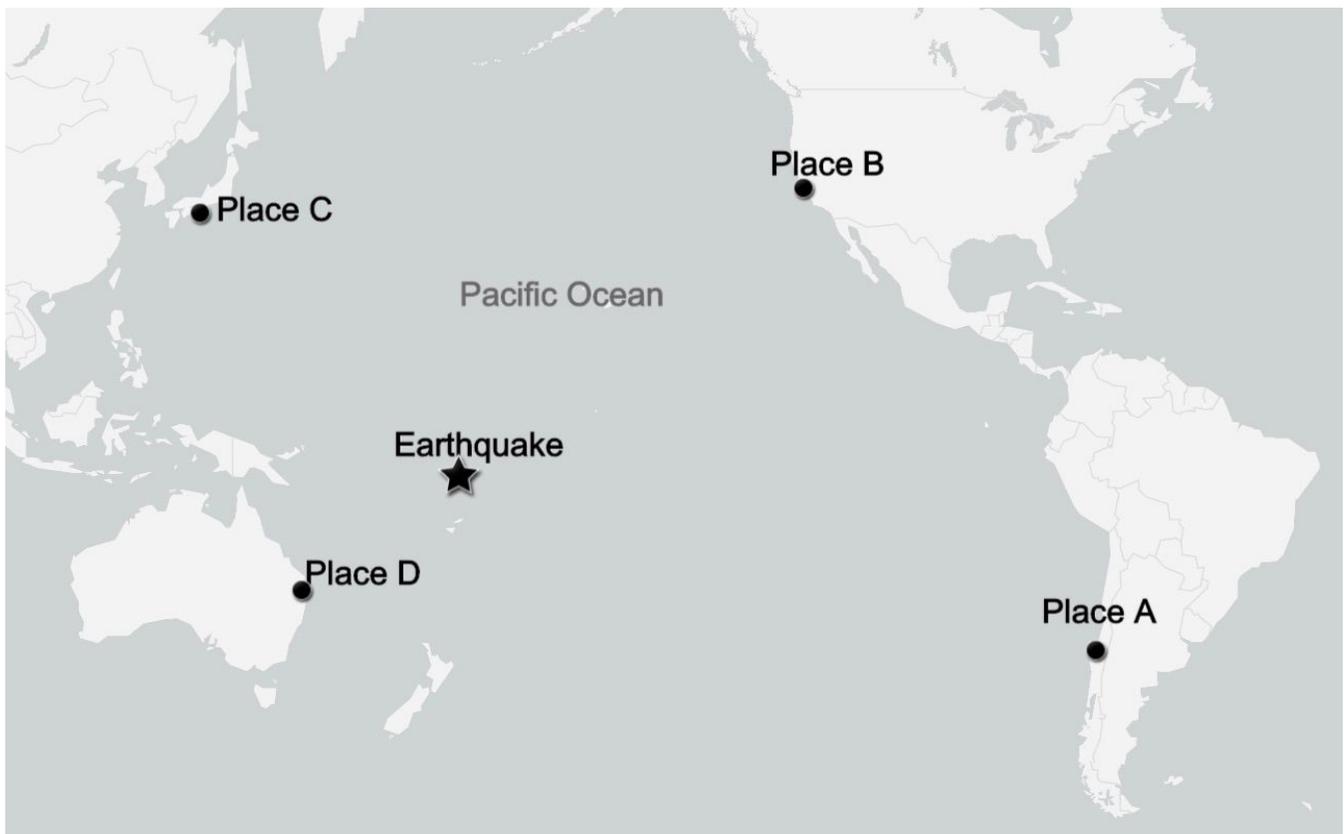
Date: _____

Explaining and Forecasting Tsunami Risk

Part 1. A shallow earthquake of 7.6 magnitude occurs along a colliding plate boundary in the Pacific Ocean. They immediately send tsunami warning signals to countries along the Pacific Ocean. Why are tsunami warnings sent out when this type of earthquake occurs? In your explanation, make sure to include: why this type of earthquake could cause a tsunami to form and how the resulting tsunami forms.

Part 2. When tsunami warnings are issued, they are sent to all the places that could be affected even though some places are at higher risk than others. The map below shows the location of the earthquake and four places where the tsunami warning was sent.

2a. Use the map and think about what you know about tsunamis and how they affect places along the coasts.



2b. Complete the table to rate which places are most at risk for tsunami damage, based on how quickly it will be impacted and the risk for damage to people and property.

Location and Description	How Quickly Impacted	Risk for Damage
<p>A description of each location. (Place A - Place D)</p>	<p>Based on what you know about waves, rank the places by how quickly they will be impacted by the tsunami. <i>(1 first - 4 last)</i></p>	<p>Based on the description of each place, which are most at risk for damage? <i>(1 highest risk - 4 lowest risk)</i></p>
<p>Place A: This is a busy fishing community on the coast. It is flat and right on the water's edge with lots of boats and businesses.</p> 		
<p>Place B: This is a larger city near the ocean. Most homes and buildings are in the higher elevations of the hills nearby.</p> 		
<p>Place C: This is a rural, industrial area with not many people along a hilly coast.</p> 		
<p>Place D: This is a popular tourist town with hotels on the flat beach and lots of people.</p> 		

2c. Based on your rankings in the table, which place is **most** at risk for damage from this tsunami? Explain your choice and consider the time to impact and possible risk of damage.
