

STUDENT WORKSHEET

Name _____

Your job as a forecaster for the tsunami warning agency is to determine how long it will take for a tsunami to arrive at a point on the coast from the site of a tsunami-generating event. Assume that the tsunami is travelling at a constant rate of 500 miles per hour. You will need to measure the distance between the site of the event and the point on the coast.

<u>Pt. of Origin</u>	<u>Pt. on Coast</u>	<u>Map Inches</u>	<u>Distance</u>	<u>Travel Time</u>
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A1	A2			
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A1	A3			
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A1	A4			
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[A1 is the location of La Palma Island in the Canary Islands, a site with potential for causing a catastrophic tsunami]

B1	B2			
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B1	B3			
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[B1 is Puerto Rico, another site often mentioned as potentially causing worrisome tsunamis]

C1	C2			
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C1	C3			
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[C1 is on the Peruvian coast, another likely origin for tsunamis]

For extra credit: Determine the travel time for the Krakatoa tsunami of 1883 to reach the Atlantic Coast of France by way of the Indian Ocean and the Cape of Good Hope. Krakatoa is located between the islands of Sumatra and Java in Indonesia. Assume a constant speed of 500 miles per hour.

ANSWER KEY STUDENT WORKSHEET

Your job as a forecaster for the tsunami warning agency is to determine how long it will take for a tsunami to arrive at a point on the coast from the site of a tsunami-generating event. Assume that the tsunami is travelling at a constant rate of 500 miles per hour. You will need to measure the distance between the site of the event and the point on the coast.

<u>Pt. of Origin</u>	<u>Pt. on Coast</u>	<u>Map Inches</u>	<u>Distance</u>	<u>Travel Time</u>
A1	A2	1.5—1.75	3900-4550	7.8—9.1
A1	A3	1.25—1.5	3250--3900	6.5—7.8
A1	A4	1.25—1.5	3250--3900	6.5—7.8

[A1 is the location of La Palma Island in the Canary Islands, a site with potential for causing a catastrophic tsunami]

B1	B2	1.25—1.5	3250--3900	6.5—7.8
B1	B3	.25--.5	650--1300	1.3—2.6

[B1 is Puerto Rico, another site often mentioned as potentially causing worrisome tsunamis]

C1	C2	2.25--2.5	5850--6500	11.7--13
C1	C3	1.25—1.5	3250—3900	6.5—7.8

[C1 is on the Peruvian coast, another likely origin for tsunamis]

For extra credit: Determine the travel time for the Krakatoa tsunami of 1883 to reach the Atlantic Coast of France by way of the Indian Ocean and the Cape of Good Hope. Krakatoa is located between the islands of Sumatra and Java in Indonesia. Assume a constant speed of 500 miles per hour.