

- C. Using the scale on the diagram, determine the distance between the five major islands and enter your answers in the appropriate spaces in Data Table 1. Measure the distance between the dots placed at the center of the major islands.
- D. Convert each distance from kilometers to centimeters by multiplying the value in kilometers by 100,000. Enter the new data in the appropriate space in Data Table 1.
- E. Calculate the approximate age differences between the islands and enter the data in Data Table 1.

DATA TABLE 1

Islands	Distance Between the Two Islands		Difference in Approximate Ages of the Two Islands (years)
	(km)	(cm)	
Hawaii and Maui	150 km	15,000,000 cm	12,000,000 yrs.
Maui and Molokai			
Molokai and Oahu			
Oahu and Kauai			

- F. Using the following formula, calculate the approximate speed at which the crustal plate was moving between the times that each of the islands formed. Enter your data in Data Table 2.

$$\text{Speed of crustal Movement (cm/yr)} = \frac{\text{Distance between the two islands (in centimeters)}}{\text{Difference in approximate ages of the two islands (in years)}}$$

DATA TABLE 2

Islands	Speed of Crustal Movement (cm/yr)
Hawaii and Maui	$\frac{15,000,000}{1,200,000} = 12.5 \text{ cm/yr}$
Molokai and Oahu Maui and Molokai	
Molokai and Oahu	
Oahu and Kauai	

6. Now calculate the average speed of crustal movement.

cm/yr

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