Fill out the table below:

Use the scale and the approximate center of each island as a location to measure the distances from Loihi.

Island	Age (millions of yrs) Use the highest number if range	Distance from Loihi (km) Measure to center of island	Velocity of Island (km/mils of year)
Hawaii			
Maui			
Lanai	1.2	250	
Oahu	2.9		
Kauai			
Nihau		560	

1. **GRAPH:** Create a position vs. time graph from your data. Label each dot with the name of the island.

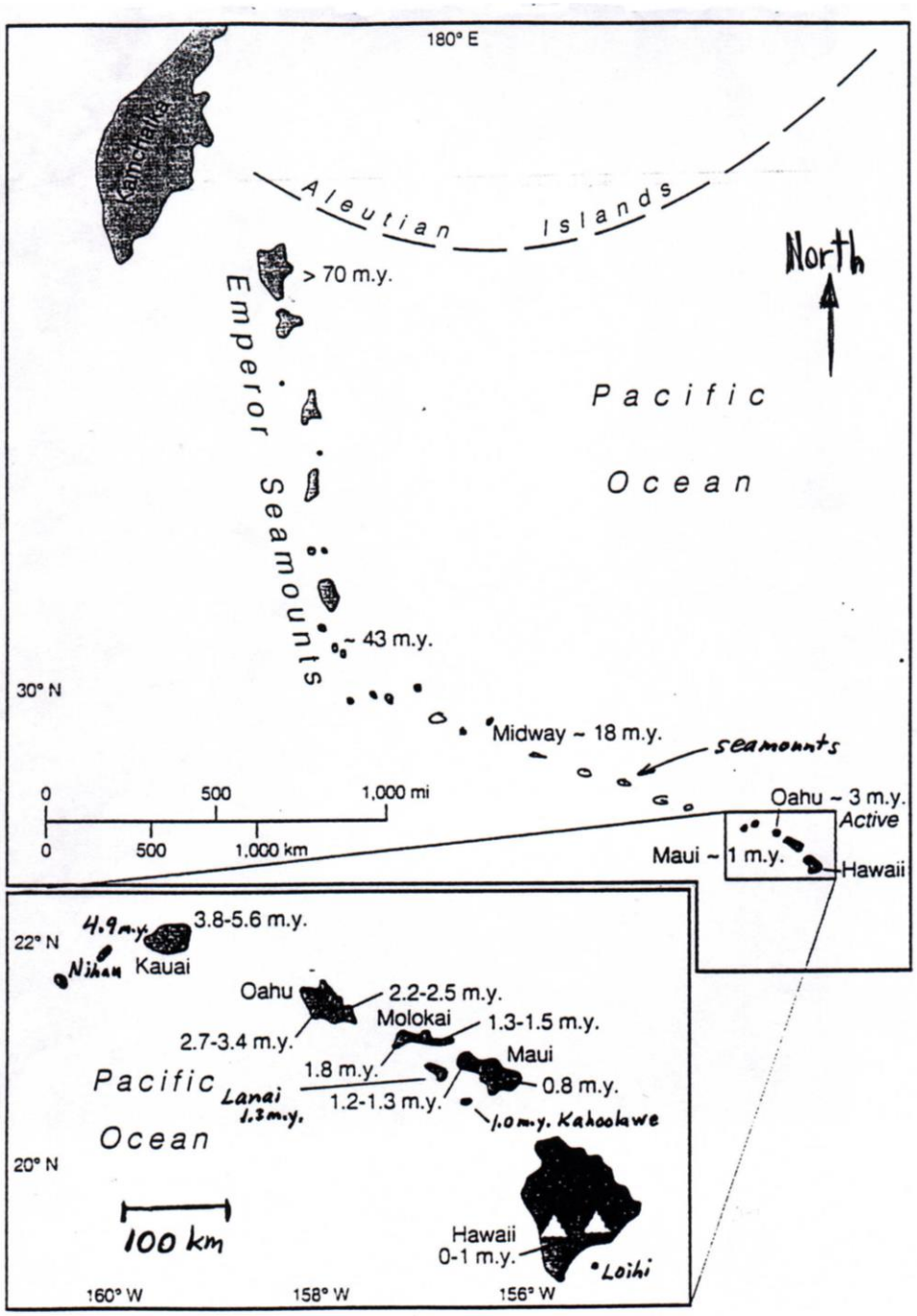
   Because the island of Hawaii and Loihi are still active (on the **HOTSPOT**), the ages for these volcanoes may not line up with the others causing some curvature of the age-distant relation.

   Therefore, **draw an approximate "best-fit" straight line through the data points** for islands older than 0.5 million years (**ignore Hawaii**).

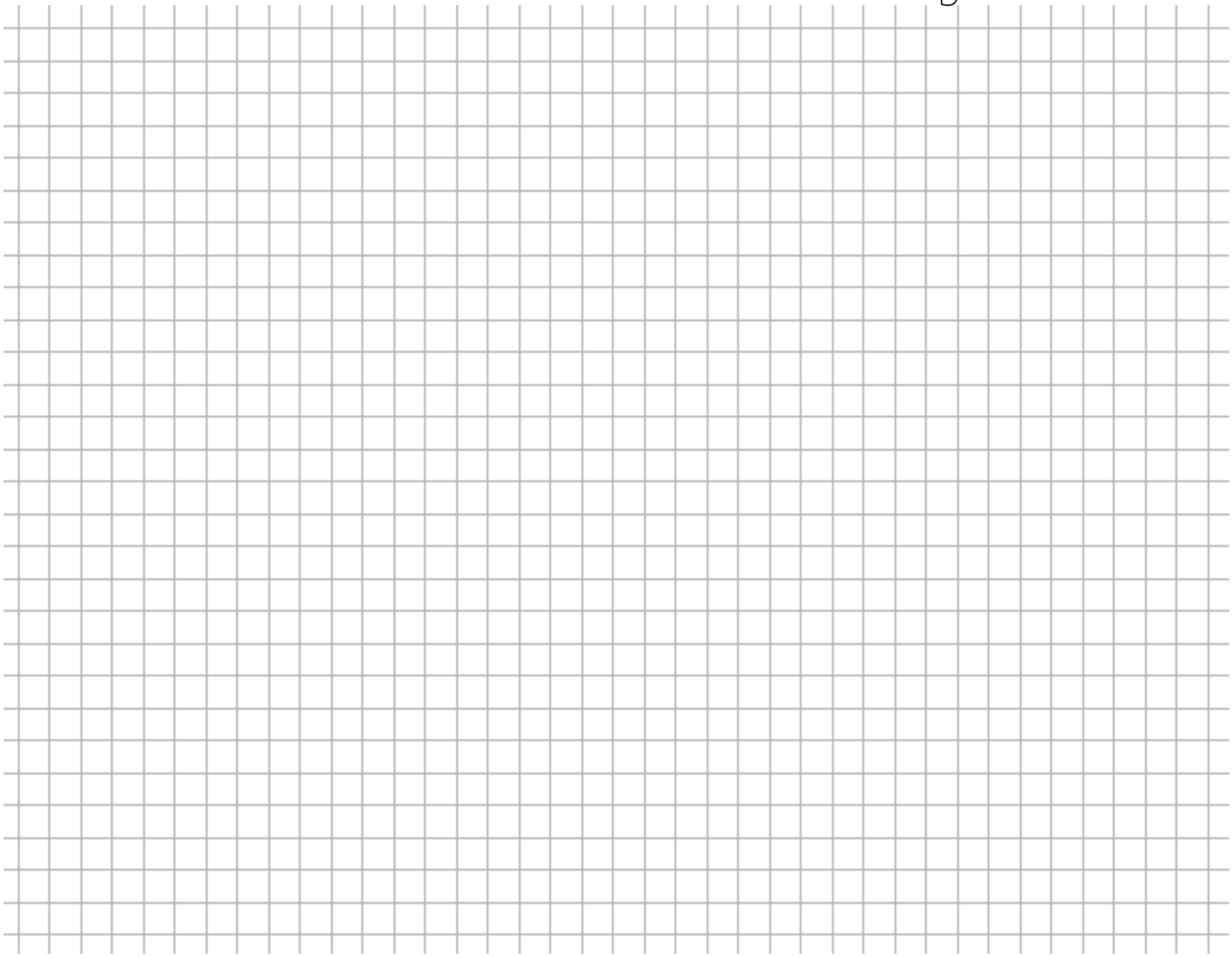
2. Calculate the overall velocity of the Pacific Plate in km/million years. Show all work!

3. Examine map. Note the trend of the Hawaiian Island chain and the continuation – the Emperor Seamounts. The top of the map is to the North. From the alignment of islands with increasing ages (from 0 to 42.4 million years), what direction has the plate moved over the hotspot?

4. Describe the relationship (in words) between the distance from Loihi and the age of the volcanism for the Hawaiian Islands that is shown on your graph?



1 km = 10,000 cm

V = change in position / change in time

Hawaiian Islands: Formation & Velocity