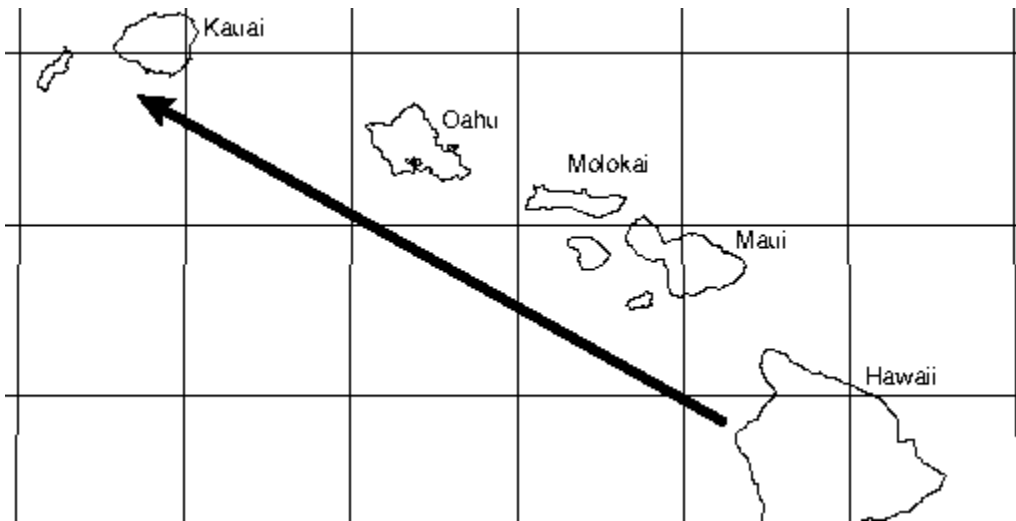


Plate motion exercise



Island	Age of volcanoes	Distance from center of big Island
Hawaii	0 m.y.	0
Maui	1.1 m.y.	140 km
Molokai	1.6 m.y.	220 km
Oahu	2.5 m.y.	300 km
Kauai	4.0 m.y.	460 km

Do you understand the hotspot theory? If you do, then you realize that it is very easy to calculate the rate of absolute plate motion of the Pacific plate.

Use this equation: **Rate of plate movement = distance/age.**

(Tip – just use the Kauai data)

Answer in kilometers per million years _____.

Answer in millimeters per year _____.

Can we confirm this by direct measurements? _____. How?