#1. The distance between Seattle and Los Angeles is 1193 miles or 1920 km. So, moving at a clip of 5 m per century, it would take \( t = \frac{1.920 \times 10^6 \text{ m}}{5 \text{ m per century}} = 3.84 \times 10^5 \text{ centuries} = 3.84 \times 10^7 \text{ years} = \text{about 38 million years for Los Angeles to move up next to Seattle.} \) If the same rate is used for the Hawaiian Islands, then Kauai is older than Hawaii by \( t = \frac{4.8 \times 10^5 \text{ m}}{5 \text{ m per century}} = 9.6 \times 10^4 \text{ centuries} = 9.6 \times 10^6 \text{ years} = \text{about 10 million years (since 300 miles = 480 km).} \)