Plate Tectonics required homework questions

*For these questions, just remember the basic equation of distance = rate * time is the only one you will need for your calculations. You will need to look up some values to complete the equation.*

1. If the movement along the San Andreas fault, which separates the pacific plate from the North American plate, averages 5.5 cm/year, how long will it take before Los Angeles is opposite San Francisco?

2.
    a. Thanks to spreading along the Mid-Atlantic ridge, North America and Africa are moving away from each other at an average rate of about 2.5 cm/year (Fig. 3.13). Assuming approximately 4500 km from North America to Africa, calculate what the age of the oceanic crust is adjacent to Norfolk, Virginia.
    b. Your calculated age should differ slightly from the age indicated in Fig. 3.12. Why might this be?