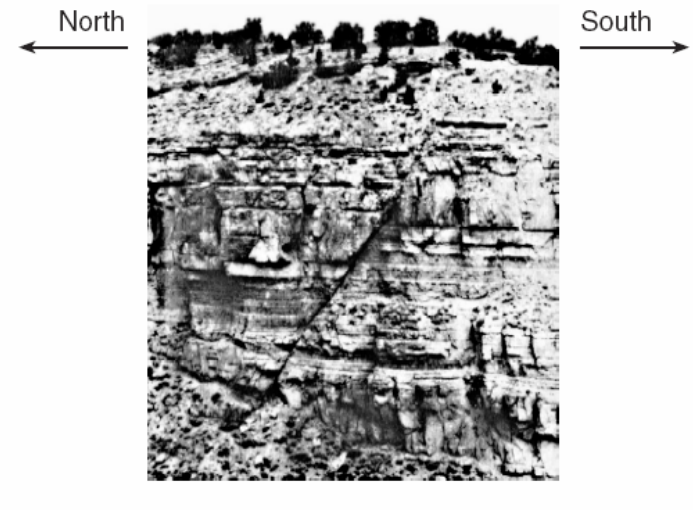
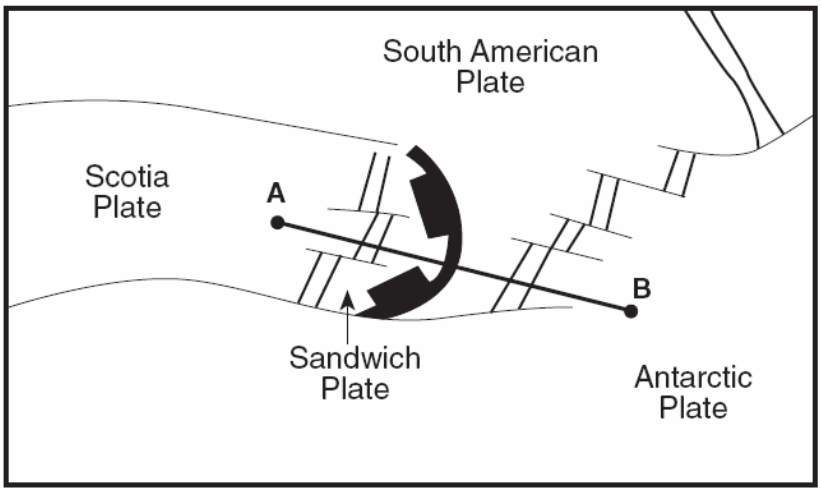
Dynamic Crust Review

Use the picture to the right to answer questions 1-3.



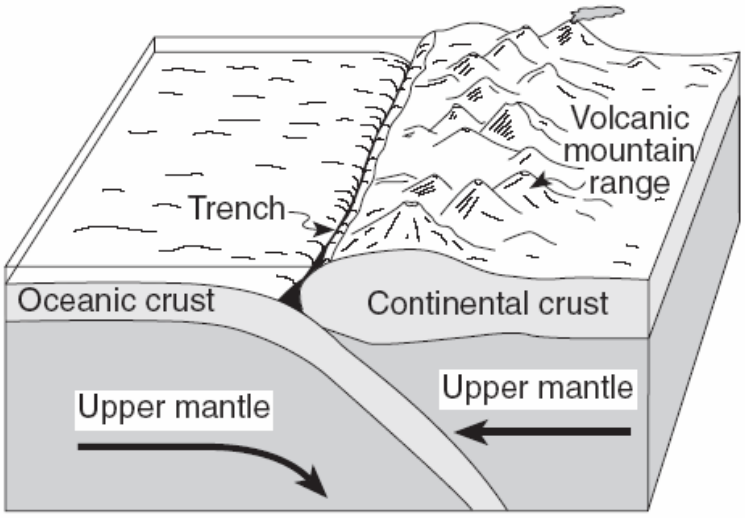
1. Label the fault in the diagram
2. What could have caused that diagonal crack or fault in the layers?
3. Which side went UP in the diagram?

Use the diagram to the right to answer questions 4-5.



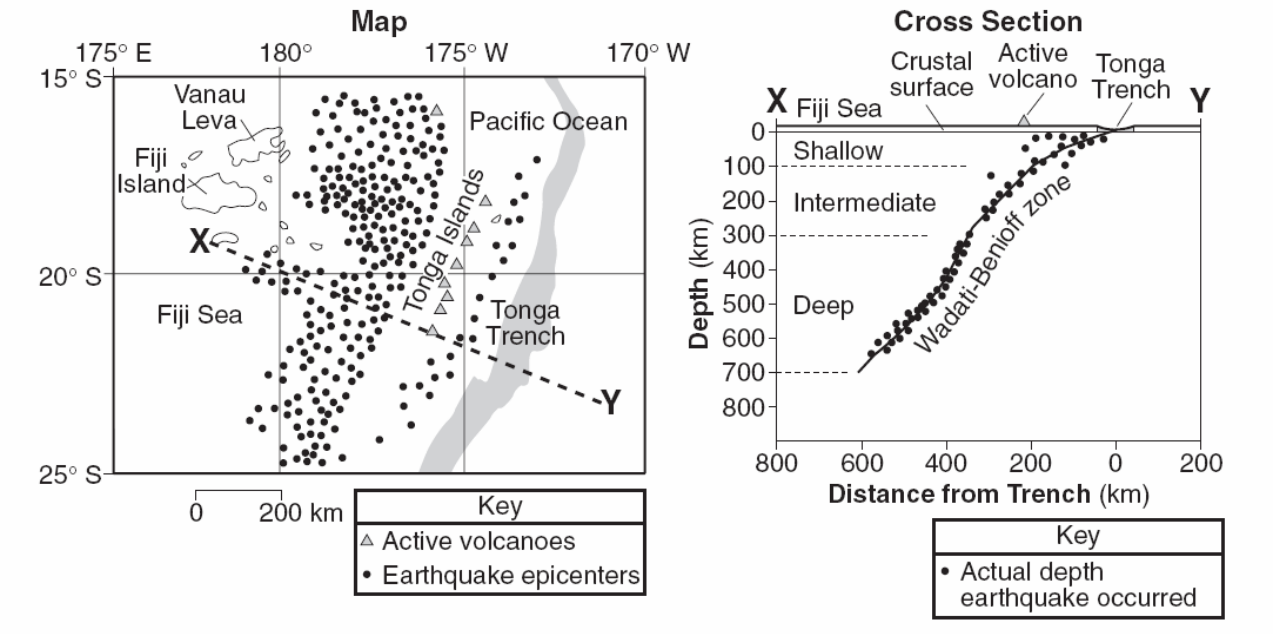
4. As you travel from point A to point B, name the plate boundaries you pass.
5. What is the latitude and longitude of the Sandwich Plate?

Use the diagram below to answer questions 6-10.



6. What is the density of the oceanic crust?
7. What type of boundary is in the diagram?
8. Label with small X's where earthquakes usually occur.
9. What is the specific name of the trench in the diagram?
10. What type of rocks are most of the continents made of?

Use the diagrams below to answer questions 11-13.



11. How did the Tonga Islands form?

12. Using arrows on the CROSS SECTION picture draw the motion of the plates.

13. Name the two plates on either side of the Tonga Trench at this location.

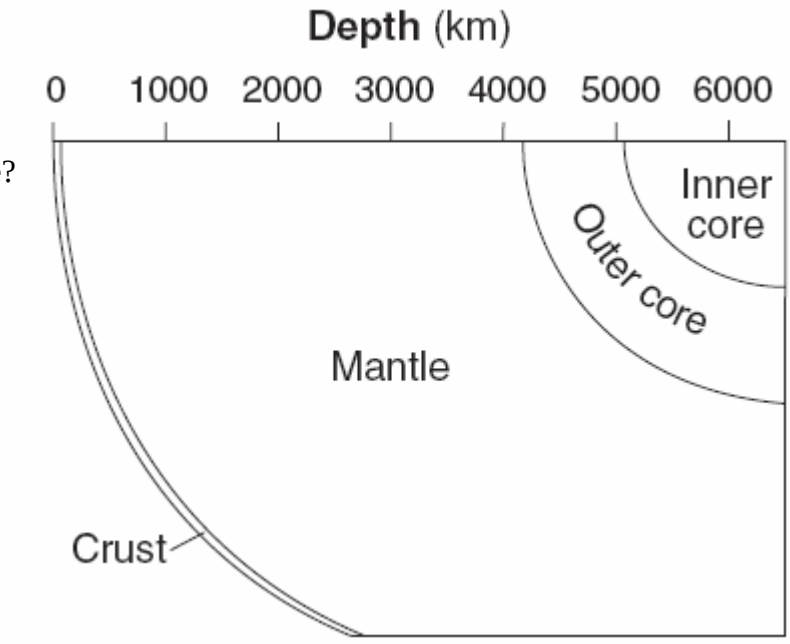
Use the diagram below to answer question 14-18.

14. At what depth below the surface does The inner core begin?

15. Approximately how thick is the mantle?

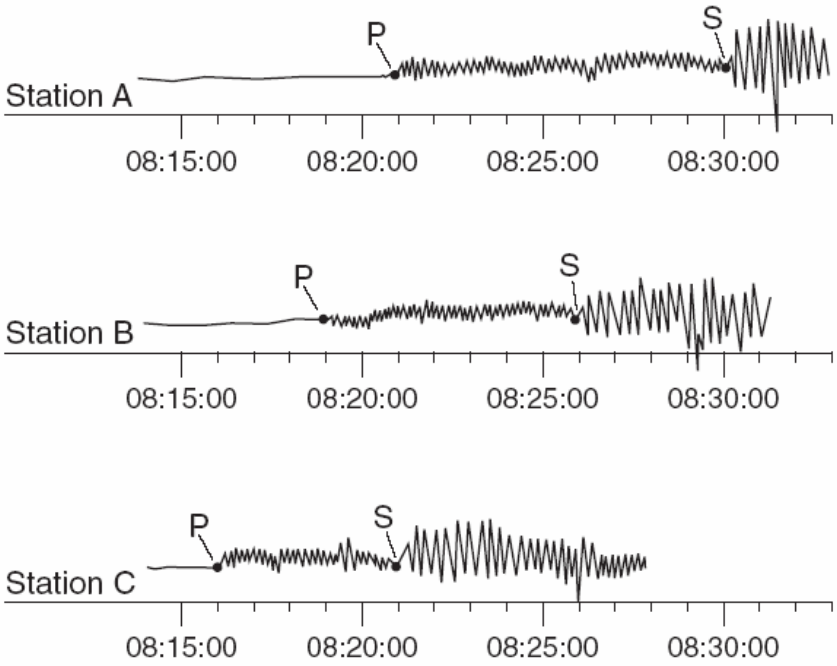
16. Which portion of the Earth's interior prevents or absorbs an earthquake's S-wave?

17. Which layer of the Earth's interior has a density of 9.9-12.1 g/cm^3?



18. What is the pressure at the interface between the outer core and the mantle?

Use the information below to answer questions 19-22.



19. What is the difference in arrival times of the P and S waves at station A?

20. Which location is closest to the epicenter?

21. How far from the epicenter is location B?

22. What is the P-wave travel time at location C?

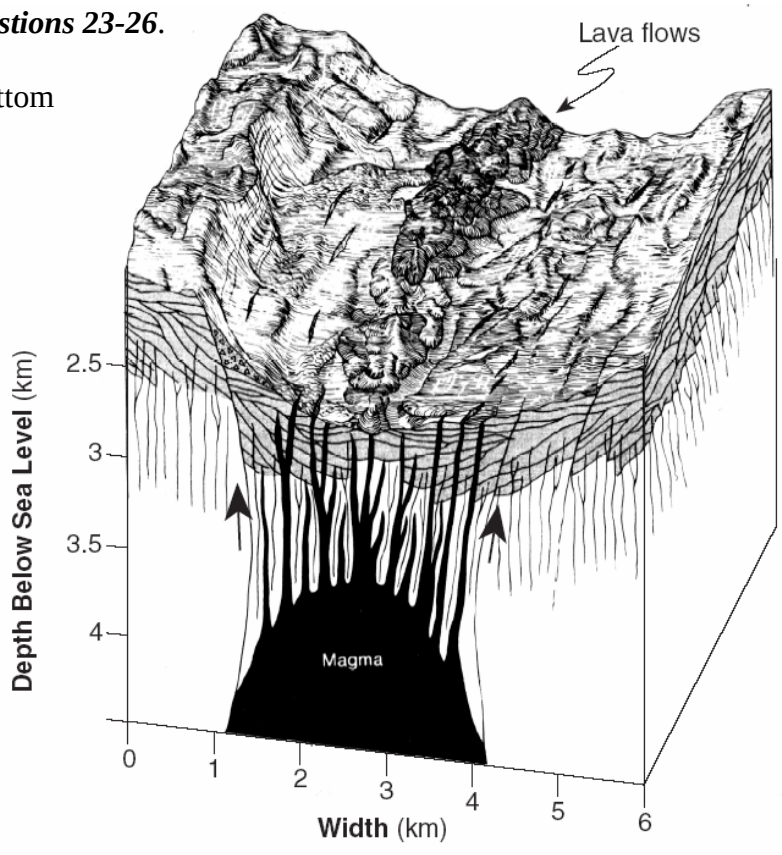
Use the diagram to the right to answer questions 23-26.

23. How thick is the magma near the bottom of the diagram?

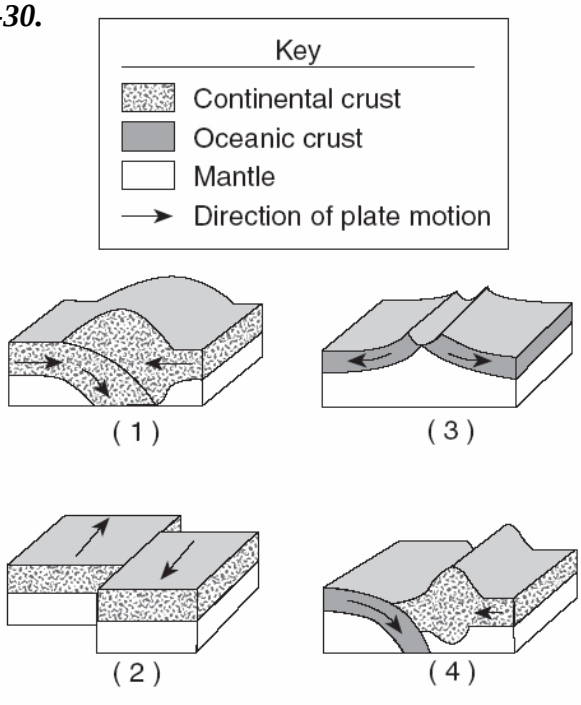
24. What is the difference between lava and magma?

25. If the lave flows are rich in PYROXENE and OLIVINE, what rock is it?

26. Why does the magma rise?



Use the following pictures to answer questions 27-30.



27. Which choice is the Mid-Atlantic Ridge?

28. Which choice is the San Andreas Fault?

29. Which choice is the Peru-Chile Trench?

30. Which choice is the Himalayan Mountains?

31. Fill in the following chart.

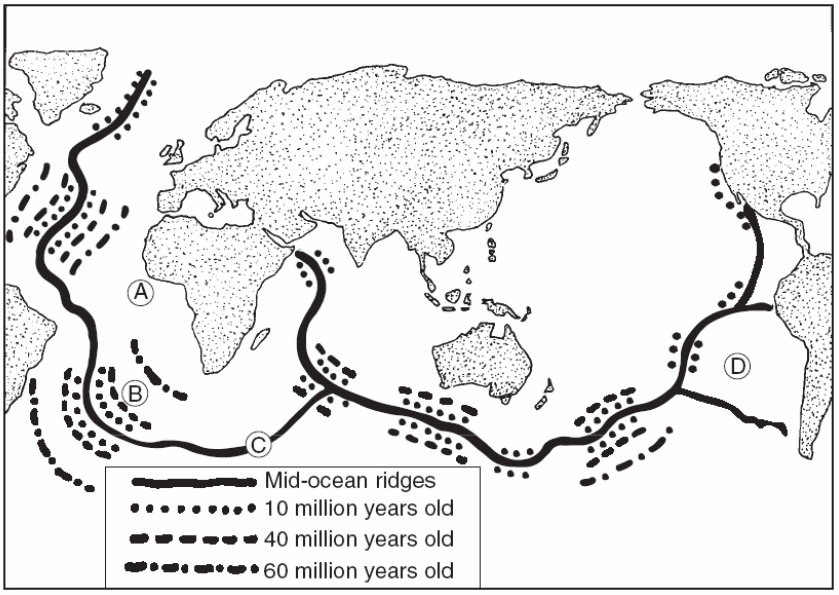
Seismic Station	*P*-Wave Arrival Time	*S*-Wave Arrival Time	Difference in Arrival Times	Distance to Epicenter
A	08:48:20	No *S*-waves arrived		
B	08:42:00		00:04:40	
C	08:39:20		00:02:40	
D	08:45:40			6,200 km

Use the picture to the right to answer questions 32-34.

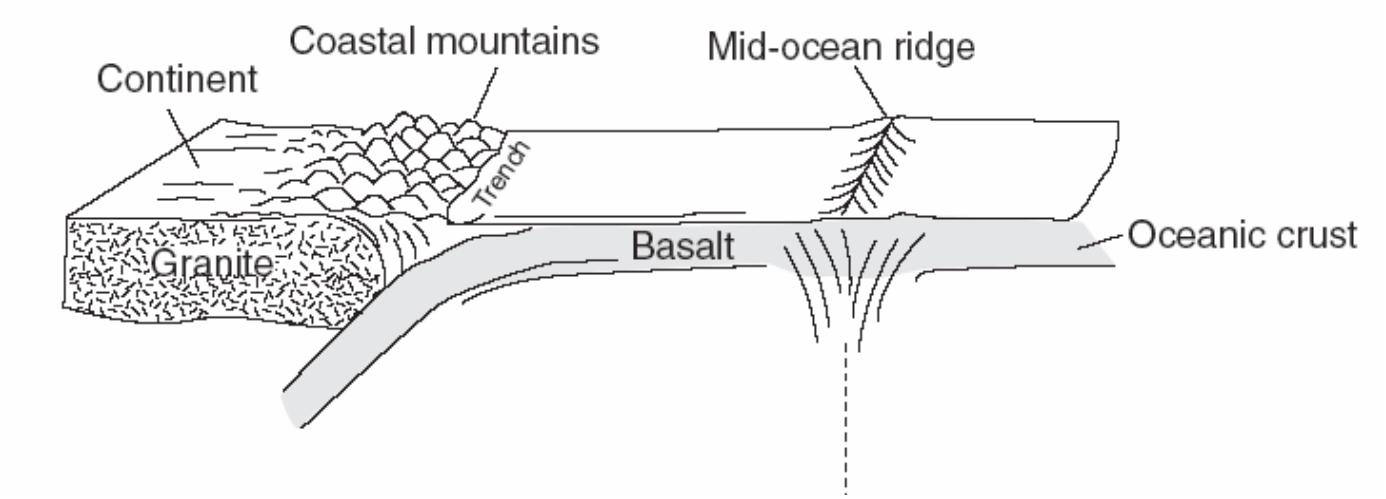
32. Which location has the youngest rock?

33. What is the approximate age of rock B?

34. Why will A and D have fewer earthquakes than C?



35. Draw the convection cells on the diagram below.



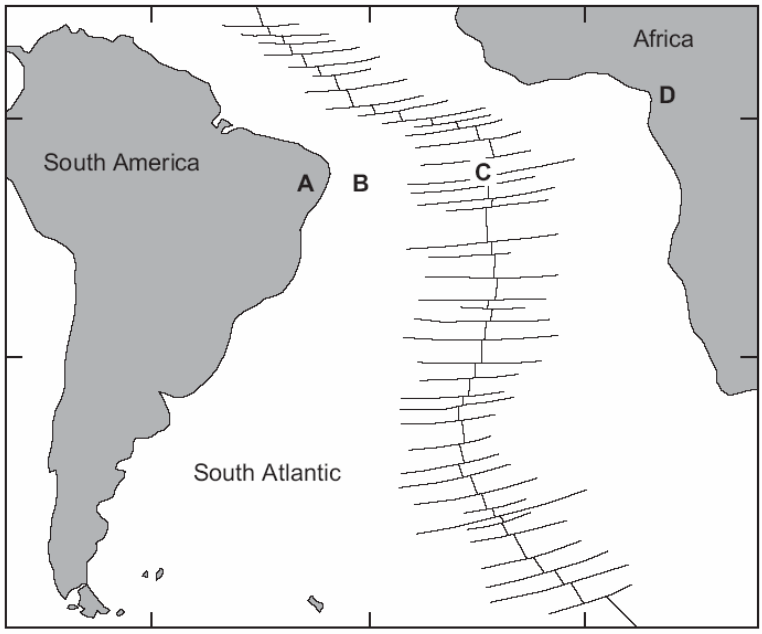
Use the following picture to answer questions 36-39.

36. How does the age of B compare to C?

37. How does the density of A compare to B?

38. What type of boundary is C?

39. What is the name of location C?



40. What could explain this overturning?