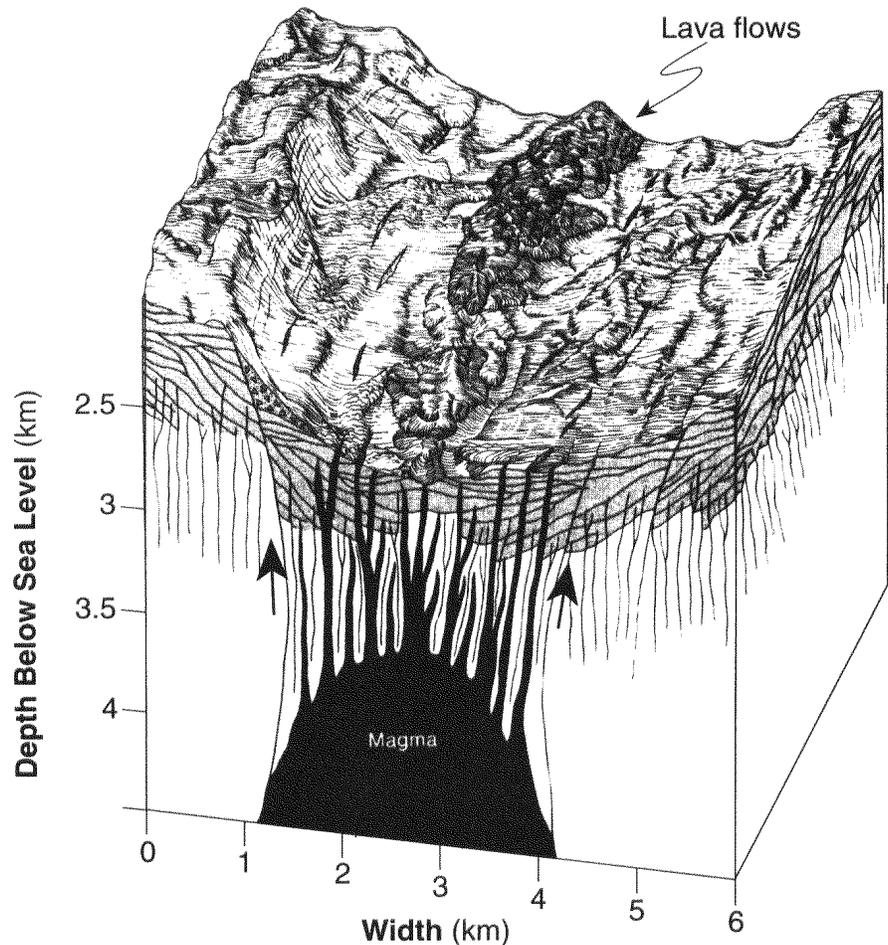


**Mini-Lesson**

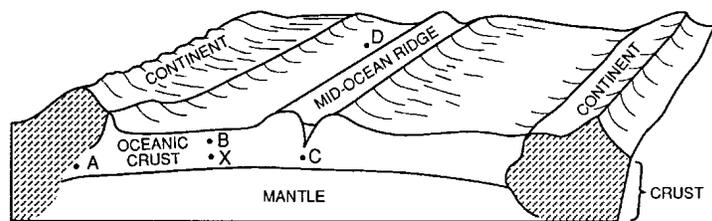
1) Base your answer to the following question on the diagram below, which shows details of a section of a rift valley in the center of a mid-ocean ridge. The vertical lines in the diagram represent faults and fractures within the ocean floor bedrock.



Which type of crustal plate boundary is shown in this diagram?

- A) divergent    B) convergent    C) universal    D) transform

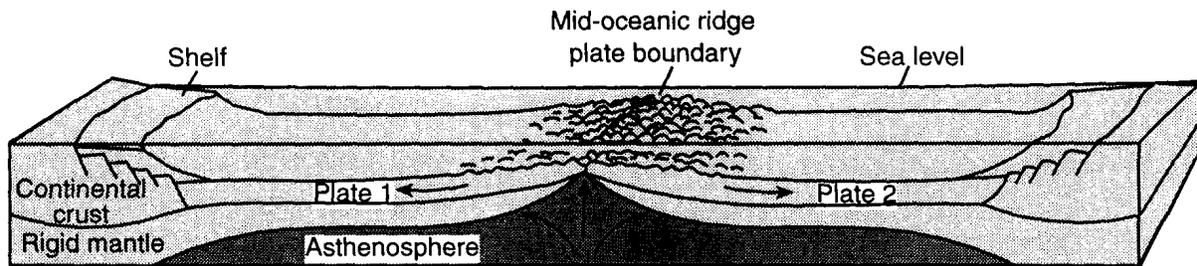
2) The diagram below represents a cross section of a portion of the Earth's crust and mantle. Letters A, B, C, D and X identify locations within the crust.



The age of oceanic crust increases along a line between location X and location

- A) A                      B) B                      C) C                      D) D

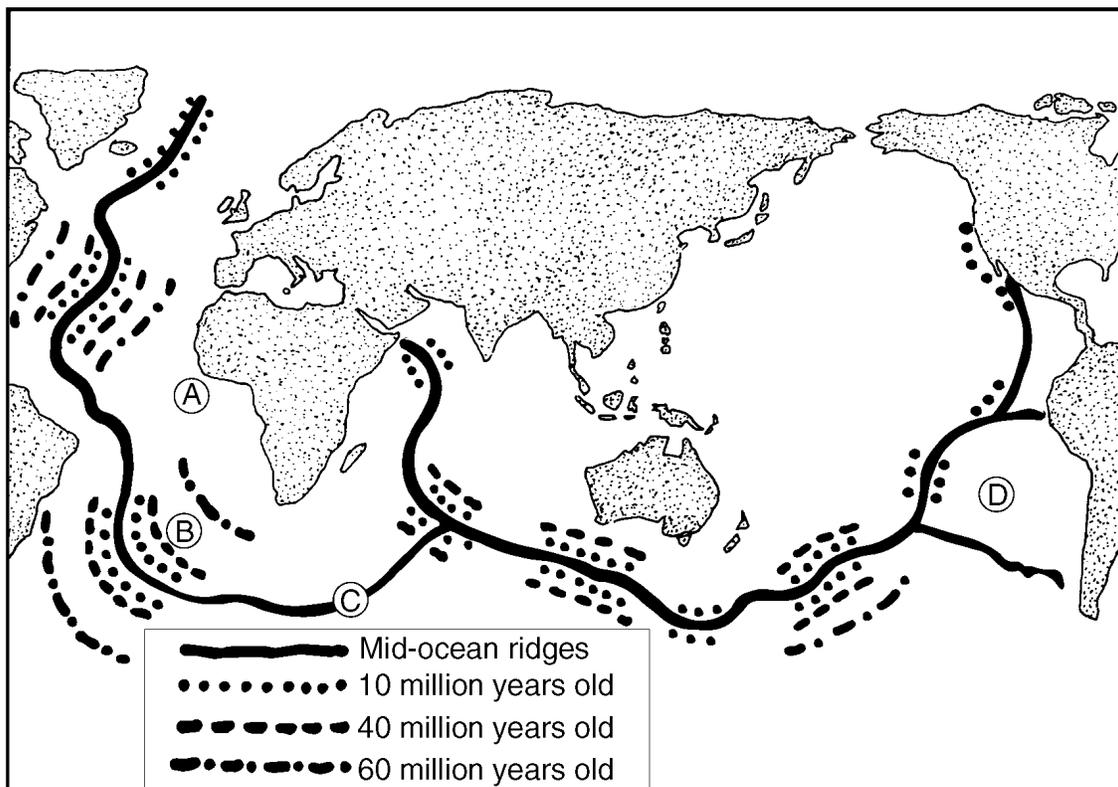
- 3) Base your answer to the following question on the cross section of two crustal plates and the boundary between them shown below. The arrows indicate the direction of rock movement.



The mid-oceanic ridge portion of this cross section best represents

- A) convergence of the Nazca Plate and the South American Plate
  - B) divergence of the African Plate and the South American Plate
  - C) subduction of the Philippine Plate by the China Plate
  - D) transform faulting between the Pacific Plate and the North American Plate
- 4) Base your answer to the following question on the map below, which shows the location of mid-ocean ridges and the age of some oceanic bedrock near these ridges. Letters A through D are locations on the surface of the ocean floor.

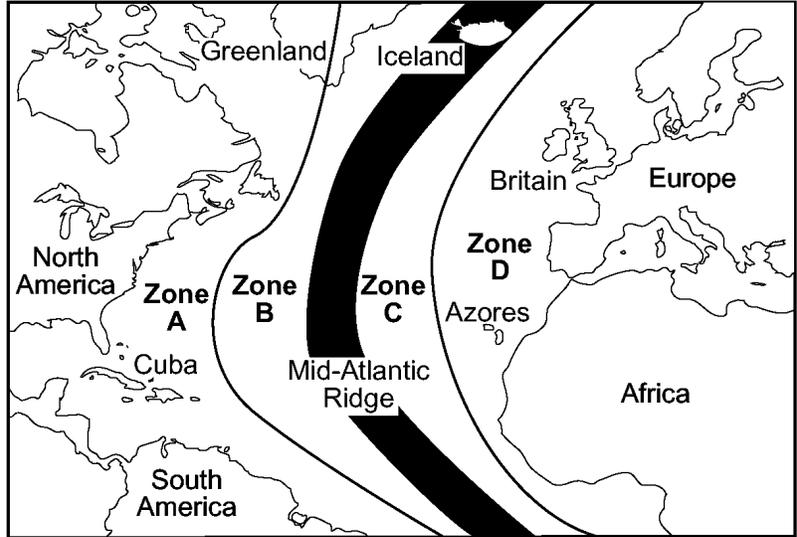
Age of Rocks on the Sea Bottom Relative to Ridges



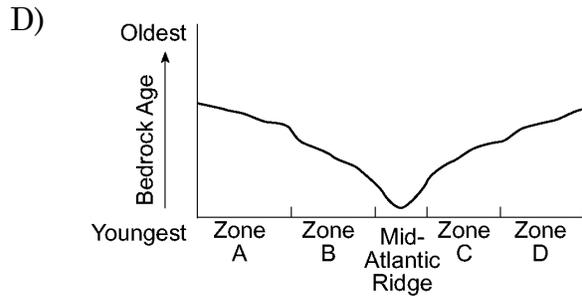
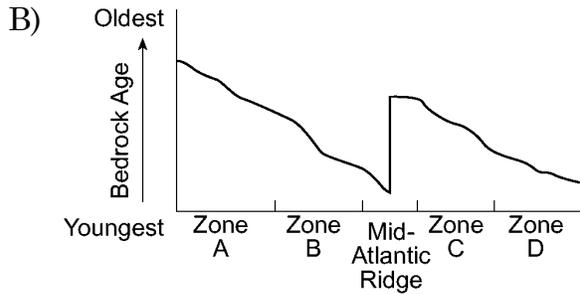
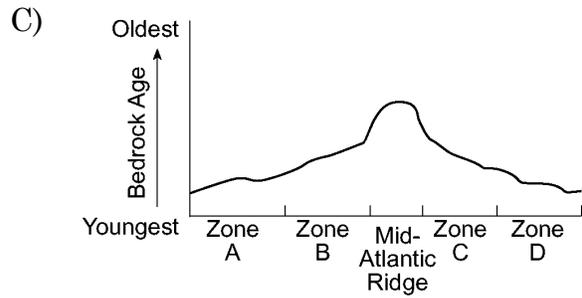
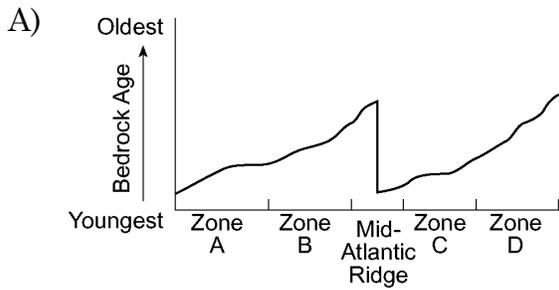
What is the most probable age, in millions of years, of the bedrock at location B?

- A) 5
- B) 12
- C) 48
- D) 62

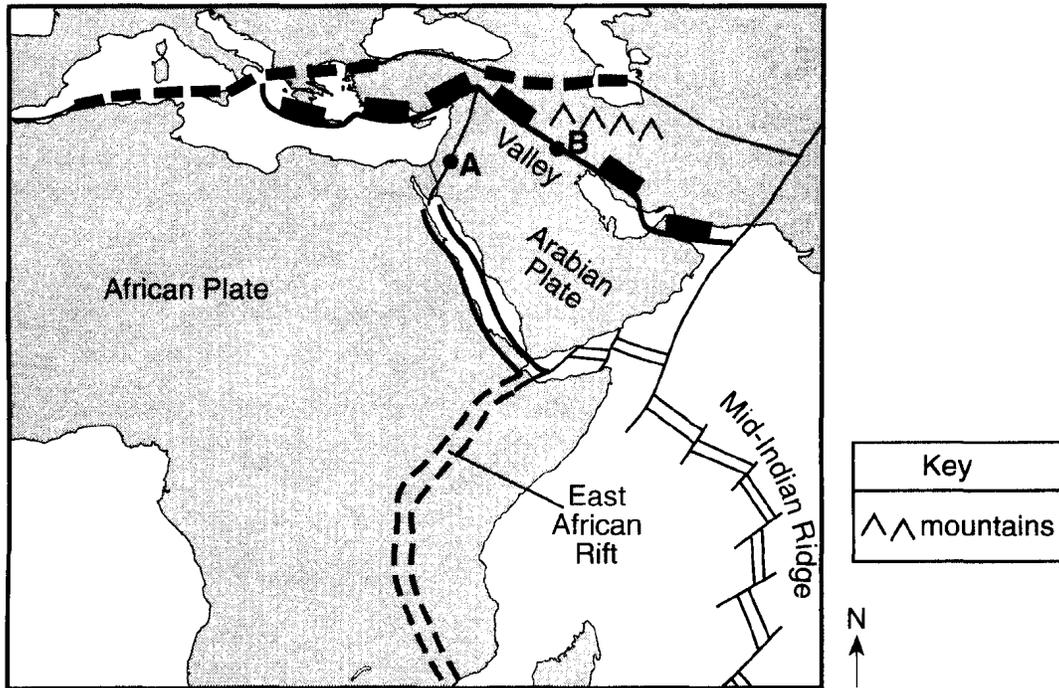
5) The map below shows the Atlantic Ocean divided into zones A, B, C, and D. The Mid-Atlantic Ridge is located between zones B and C.



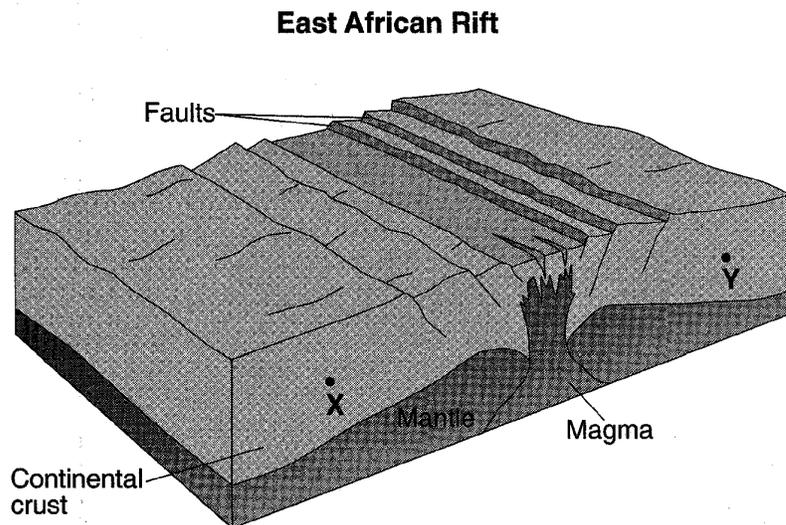
Which graph best represents the geologic age of the surface bedrock on the ocean bottom?



6) Base your answer to the following question on the map below, which is an enlargement of a portion of the *Tectonic Plates* map from the *Earth Science Reference Tables*. Points *A* and *B* are locations on different boundaries of the Arabian Plate.



The block diagram below represents Earth's surface and interior along the East African Rift. Draw *two* arrows, one through point *X* and one through point *Y*, to indicate the relative motion of each of these sections of the continental crust.



# Answer Key

## geomapappseafloor2

1) A

2) A

3) B

4) C

5) D

6)

