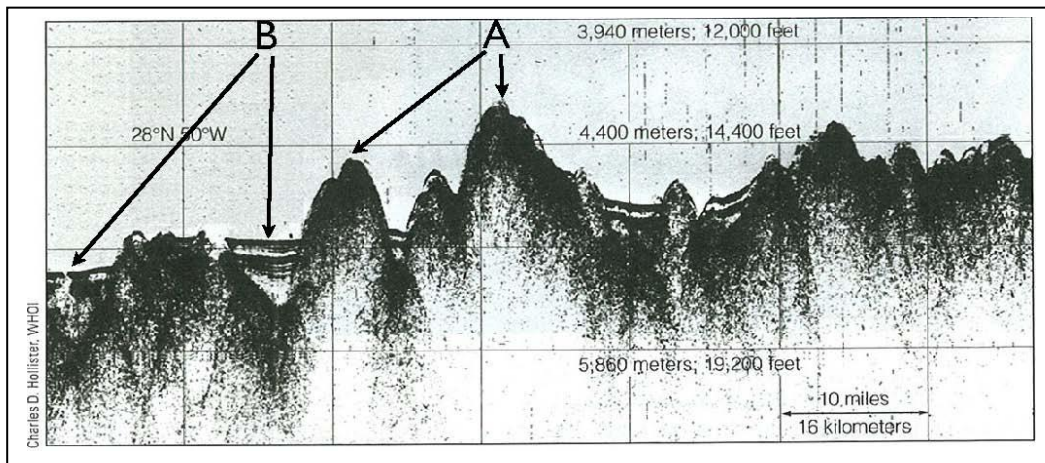


Round: 4A



1. The mountain range (marked A) featured in the echo-sounding above is part of the world's longest mountain chain. Name this mountain range.

*Mid-Atlantic Ridge (4 pts)*

*Also accept mid-ocean ridge OR spreading center (2 pts)*

2. What process is responsible for the formation of these mountains (marked A)?

*Seafloor spreading OR mid-ocean ridge spreading (4 pts)*

3. What layer of the Earth is moving as part of this process and what is the motion of this process called?

*Plates OR tectonic plates OR lithosphere are being moved (2 pts)*

*The motion of is called plate tectonics (2 pts)*

4. What layer of the earth's mantle drives the motion discussed above?

*Asthenosphere (4 pts)*

*Also accept: Ductile/deformable upper mantle*

5. What process is filling in the 'valleys' indicated by the label "B" in the figure above?

*Sedimentation (4 pts)*

Reference:

Figure 1: Echo sounding across part of the North Atlantic. From Garrison, Oceanography: An Invitation to Marine Science, 6th Ed.