

Name: \_\_\_\_\_

# Midterm Review

Date: \_\_\_\_\_ Period: \_\_\_\_\_

Earth Science

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## Review: Measuring the Earth

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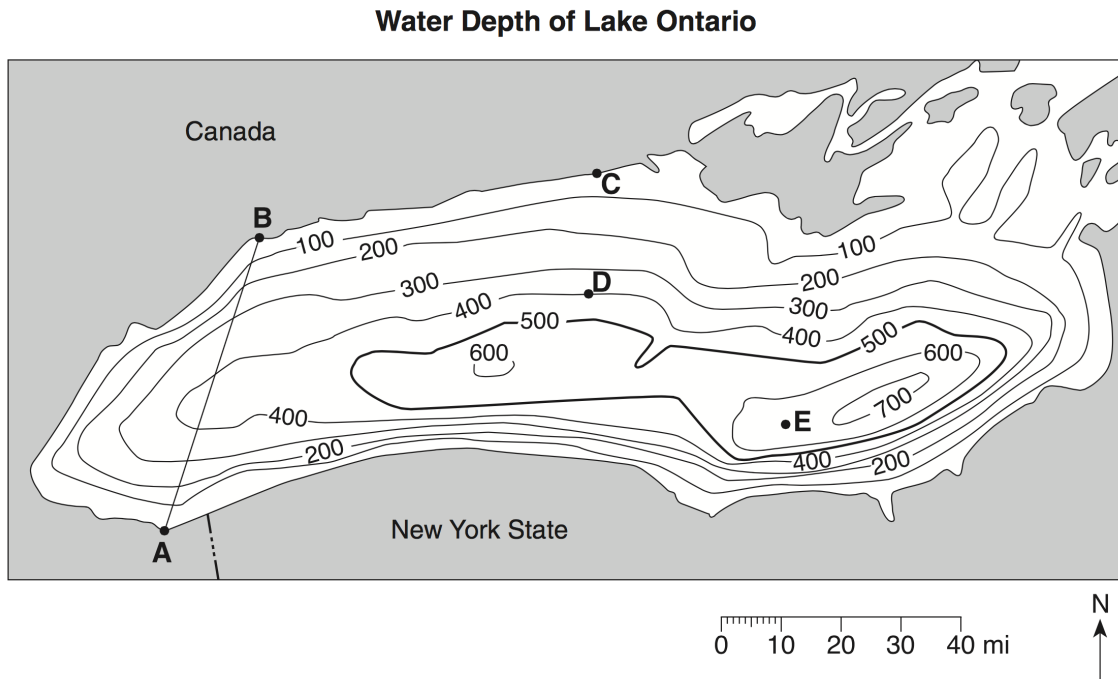
1. Which New York State city is located at  $42^{\circ}39' N$   $73^{\circ}45' W$ ?
  - a. Buffalo
  - b. Albany
  - c. Ithaca
  - d. Plattsburgh
2. To an observer on Earth, how many degrees do the stars appear to move around Polaris in 3 hours?
  - a.  $60^{\circ}$
  - b.  $45^{\circ}$
  - c.  $3^{\circ}$
  - d.  $15^{\circ}$
3. The longest portion of the Genesee River in New York State flows through which landscape region?
  - a. Erie-Ontario Lowlands
  - b. Tug Hill Plateau
  - c. Allegheny Plateau
  - d. St. Lawrence Lowlands
4. A plane traveling in a straight line from Watertown to Utica would fly over which landscape region?
  - a. Tug Hill Plateau
  - b. Adirondack Mountains
  - c. St. Lawrence Lowlands
  - d. Champlain Lowlands
5. Which two locations are found in the same major geographic landscape province?
  - a. Albany and Old Forge
  - b. Elmira and Riverhead
  - c. Jamestown and Slide Mountain
  - d. Massena and Mount Marcy
6. What is the approximate altitude of Polaris at Syracuse, New York?
  - a.  $43^{\circ}$
  - b.  $76^{\circ}$
  - c.  $47^{\circ}$
  - d.  $90^{\circ}$
7. If an observer on Earth views Polaris on the horizon, the observer is located at the
  - a. equator [ $0^{\circ}$ ]
  - b. North Pole [ $90^{\circ} N$ ]
  - c. Tropic of Cancer [ $23.5^{\circ} N$ ]
  - d. Tropic of Capricorn [ $23.5^{\circ} S$ ]

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# Review: Measuring the Earth

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Base your answers to questions 8 through 11 on the field map below and on your knowledge of Earth science. The map shows the depth of Lake Ontario. Isoline values indicate water depth, in feet. Points A, B, and C represent locations on the shoreline of Lake Ontario. Points D and E represent locations on the bottom of the lake.



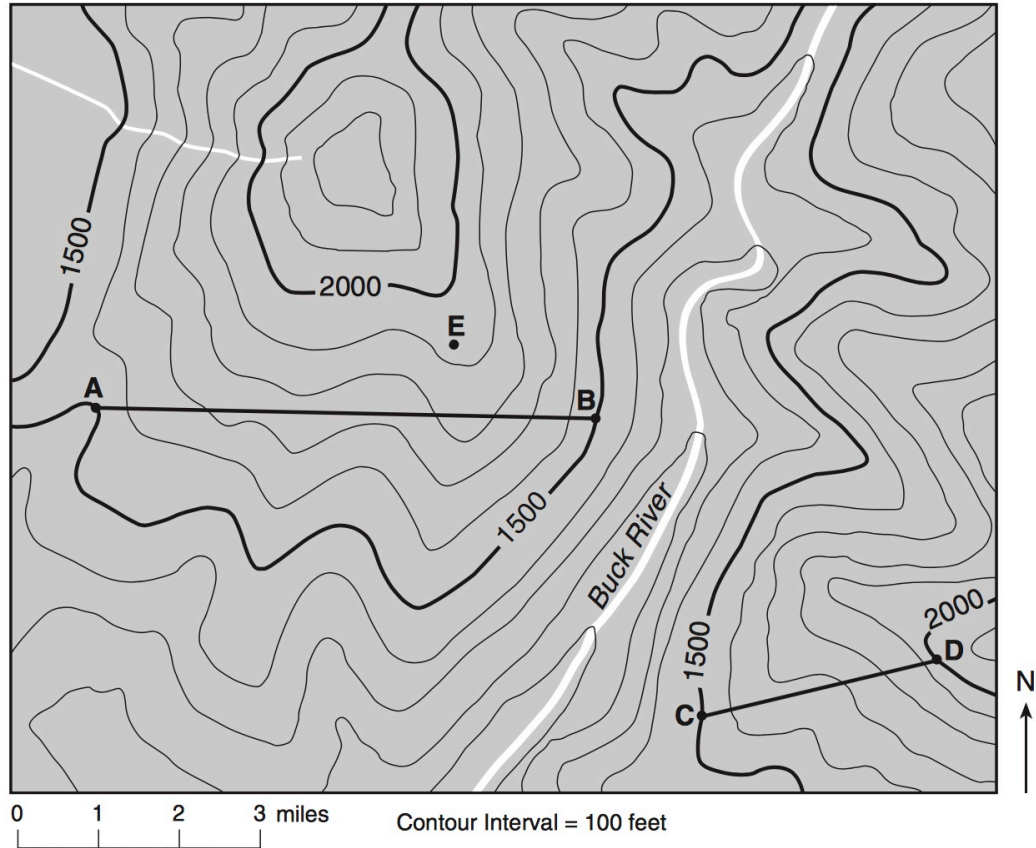
8. Calculate the gradient of the lake bottom between point C and point D.
  - a. 10 ft/mi
  - b. 15 ft/mi
  - c. 20 ft/mi
  - d. 25 ft/mi
  
9. What is a possible depth of the water at location E?
  - a. 600 feet
  - b. 650 feet
  - c. 700 feet
  - d. 725 feet
  
10. What evidence shows that the southern section of the bottom of Lake Ontario has the steepest slope?
  - a. The contour lines are spaced far apart.
  - b. The contour lines are spaced close together.
  - c. The contour lines range from 400 feet to sea level.
  - d. The southern section is along the Erie-Ontario Lowlands.
  
11. What is the maximum water depth in Lake Ontario?
  - a. 701 feet
  - b. 750 feet
  - c. 799 feet
  - d. 801 feet

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Base your answers to questions 12 through 17 on the topographic map below and on your knowledge of Earth science. Lines AB and CD are reference lines on the map. Letter E indicates a location on the map.



12. Draw an X on the location with the highest elevation.

13. Calculate the gradient along line CD.

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## Review: Measuring the Earth

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14. Describe how the contour lines indicate the direction in which Buck River flows.

15. How can you tell areas of steep slopes using contour lines?

16. What is a possible elevation at location E?

17. Using the grid below, construct a topographic profile along line AB by plotting the elevation of each contour line that crosses line AB. Points A and B have already been plotted on the grid. Connect all plots with a line from A to B to complete the profile.

