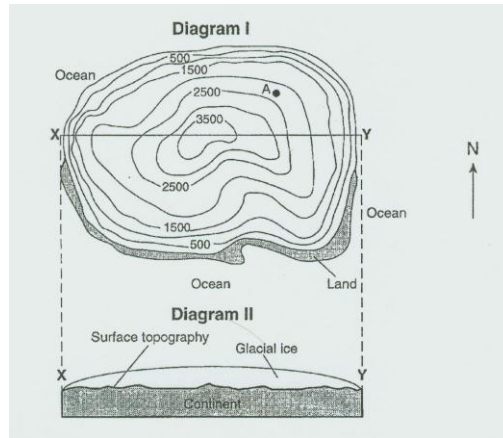# Yet another Field Map and Isolines Review ….

Review Packet #2

1. The diagram below shows an imaginary present day continent covered by a glacial ice sheet. Isolines called isopachs are drawn, representing the thickness of the ice sheet in meters.

    What is the approximate thickness of the ice at location A?

    (1)   1800 m
    (2)   2250 m
    (3)   2800 m
    (4)   3400 m

Directions: Base your answers to **questions 2-6** on your knowledge of earth science and the diagram below. The diagram represents a snap of an area in New York State. The contour lines on the map show the elevation field in the area with a lake and two rivers, Y and X.
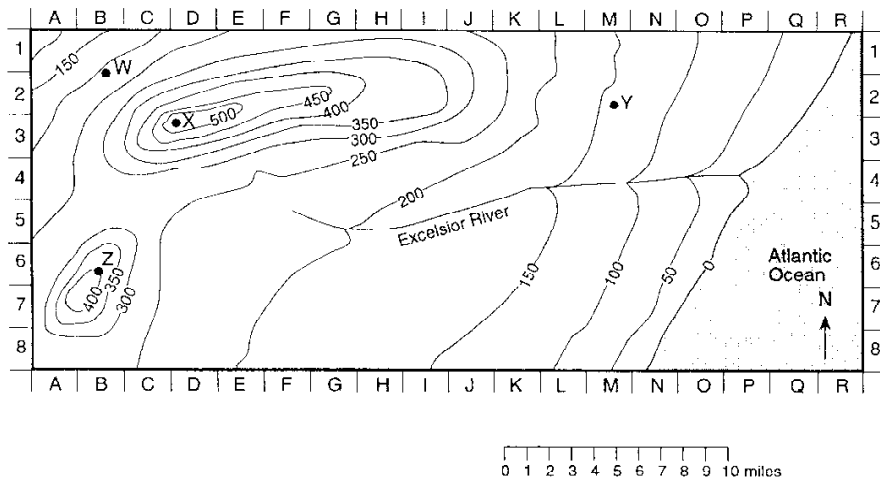

2. What is the approximate elevation at grid location 7-D?
    (1) 140 ft   (2) 170 ft   (3) 200 ft   (4) 230 ft

3. What is a possible elevation at point X?
    (1) 488 ft   (2) 548 ft   (3) 558 ft   (4) 598 ft

4. If a person at point W travels uphill, in which direction is the person traveling?
    (1) northwest   (3) southwest
    (2) northeast   (4) southeast

5. What is the gradient of the entire length of the Excelsior River?
    (1) 0.1 ft/mi   (2) 11 ft/mi   (3) 17 ft/mi   (4) 24 ft/mi

6. Which way is the Excelsior River flowing?
    (1) north to south   (3) east to west
    (2) west to east   (4) northeast to southwest

Base your answers to **questions 7-10** on your knowledge of earth science the Earth Science Reference Tables and the diagram below. The diagram represents field-intensity measurements taken at equal elevations within a room. Letters A, B, and C are reference points on the plane where the readings were taken.

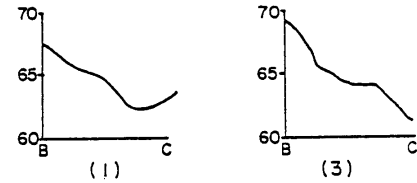7. What is the most likely field-intensity value at point A?

   (1) 64
   (2) 64.5
   (3) 63
   (4) 65.5
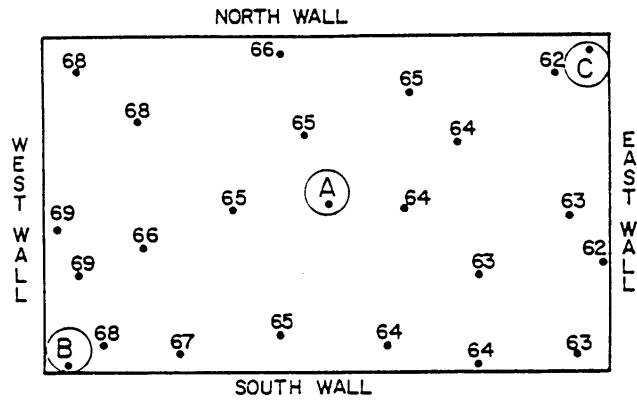
8. Which map best represents the location of the isolines for the field-intensity measurements?
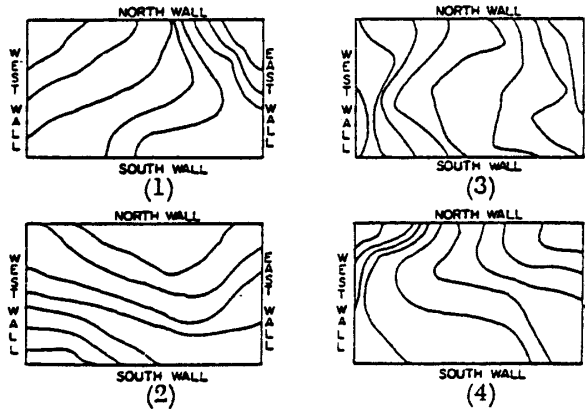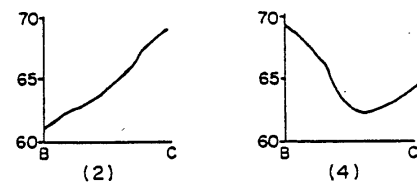

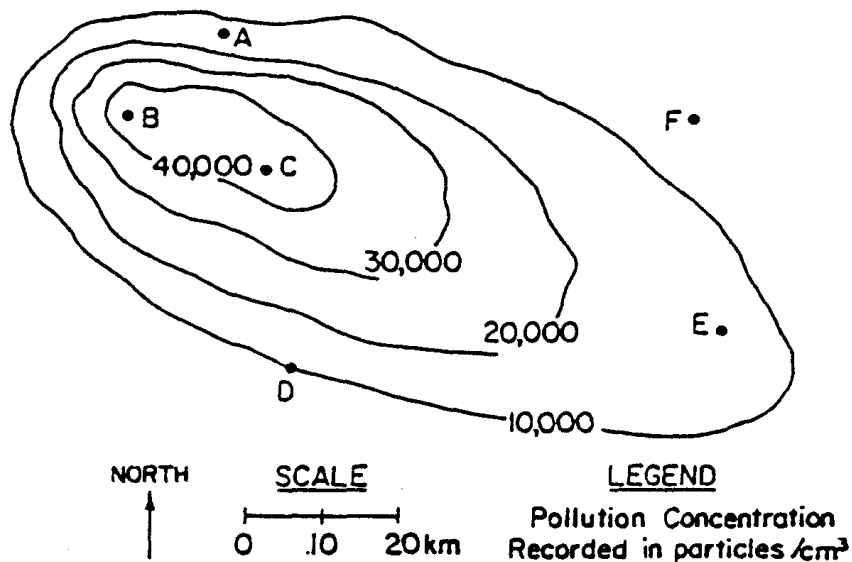9. Which graph best represents the measurements along a straight line from point B to point C?

10. If the measurements represent sound intensity (loudness) readings taken during a science class, near which wall would the source of the loudest sound most likely be located?
   (1) north wall   (3) south wall
   (2) east wall   (4) west wall

Base your answers to **questions 11-14** on your knowledge of Earth Science and the air pollution field map shown below. The isolines represent the concentration of pollutants measured in particles /cm³.


NORTH   SCALE   LEGEND

                                    Pollution Concentration
    ⬆   ├────┼────┤   Recorded in particles /cm³
            0   .10   20km

11. What is the highest possible concentration of pollutants at position B? _____

12. Which part of the map shows the greatest pollutant gradient? _____

13. Estimate the concentration of pollutants at point F. _____

14. Which graph best represents the relationship between the pollution concentration and distance from point B toward point E?

   (1)   (2)   (3)   (4)
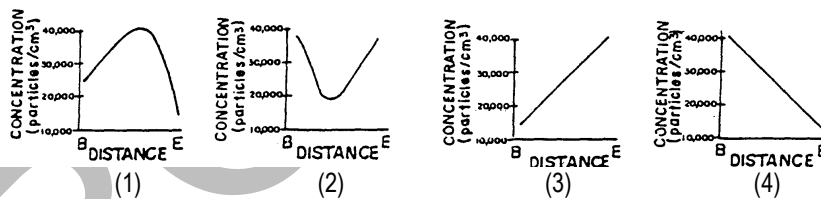
The map below shows the elevation field for a 30-by-50-meter section of a parking lot on which a large pile of sand has been dumped. The isolines show the height of the sand above the surface of the parking lot in meters.
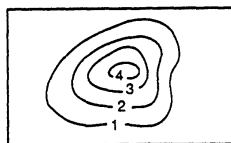
15. Which map represents the most likely elevation field for the same area after several heavy rainstorms have worn down the mound??

   (1)   (2)   (3)   (4)
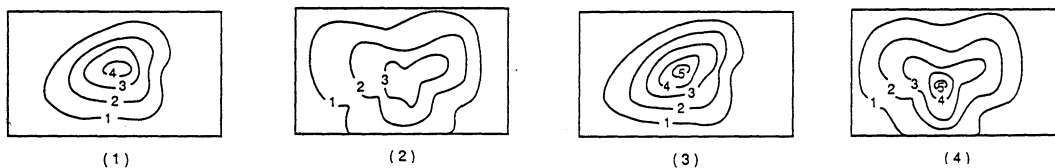
Directions: Base your answers to **questions 16-20** on your knowledge of earth science and the diagram below. The diagram represents a snap of an area in New York State. The contour lines on the map show the elevation field in the area with a lake and two rivers, Y and X.
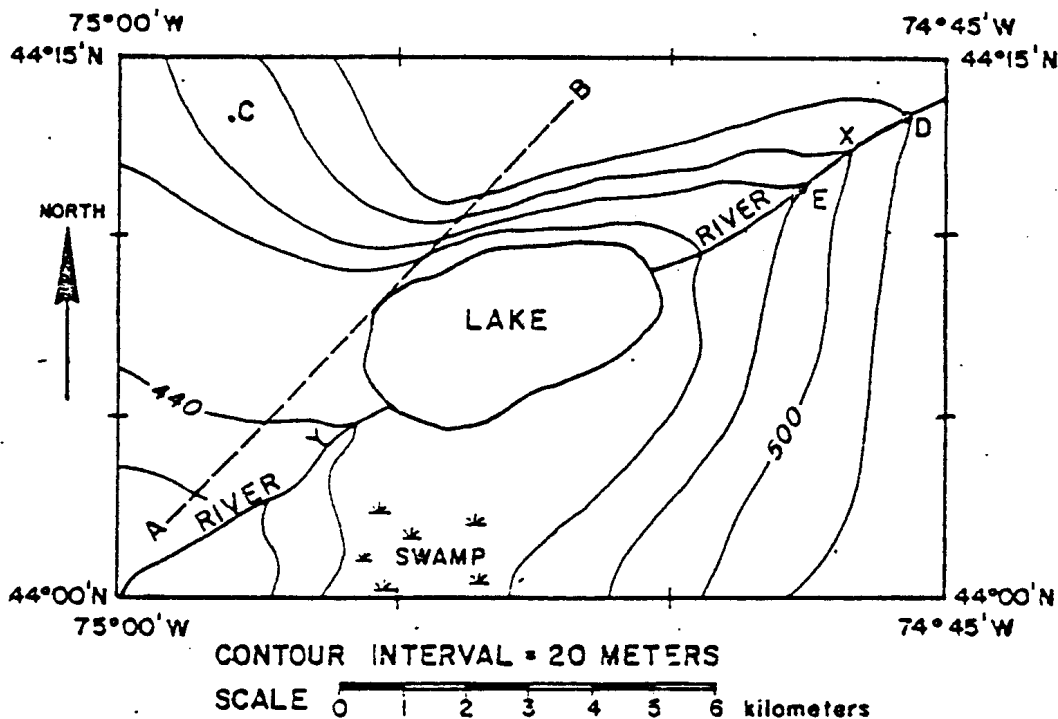
16. On which side of the lake does the land have the steepest slope?
    (1) north
    (2) south
    (3) east
    (4) west

17. What is the approximate elevation of point C?
    (1) 480 meters
    (2) 490 meters
    (3) 500 meters
    (4) 510 meters

18. According to the map, River Y is
    (1) a source of water for the lake
    (2) at the same elevation as River X
    (3) an outlet for the lake
    (4) a tributary for River X

19. The average gradient of River X between points D and E is closest to
    (1) 16 m/km
    (2) 2 m/km
    (3) 20 m/km
    (4) 40 m/km

20. Which graph best represents the shape of the land surface from A to B?