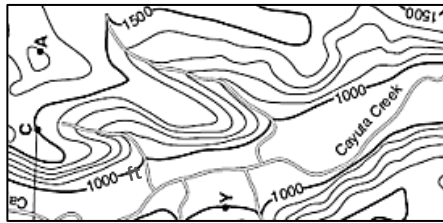


Field Maps and Isolines Exam Review - ANSWERS

Task 1: Finding the Contour Interval

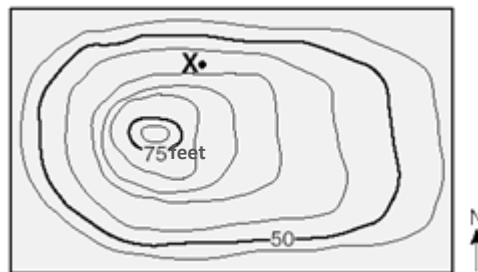
1. 100 ft



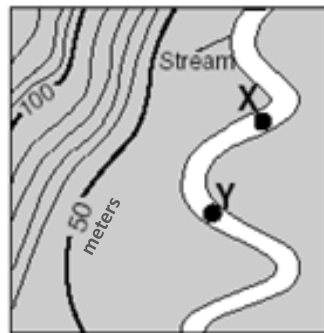
2. 4 inches



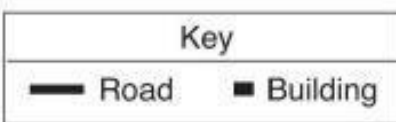
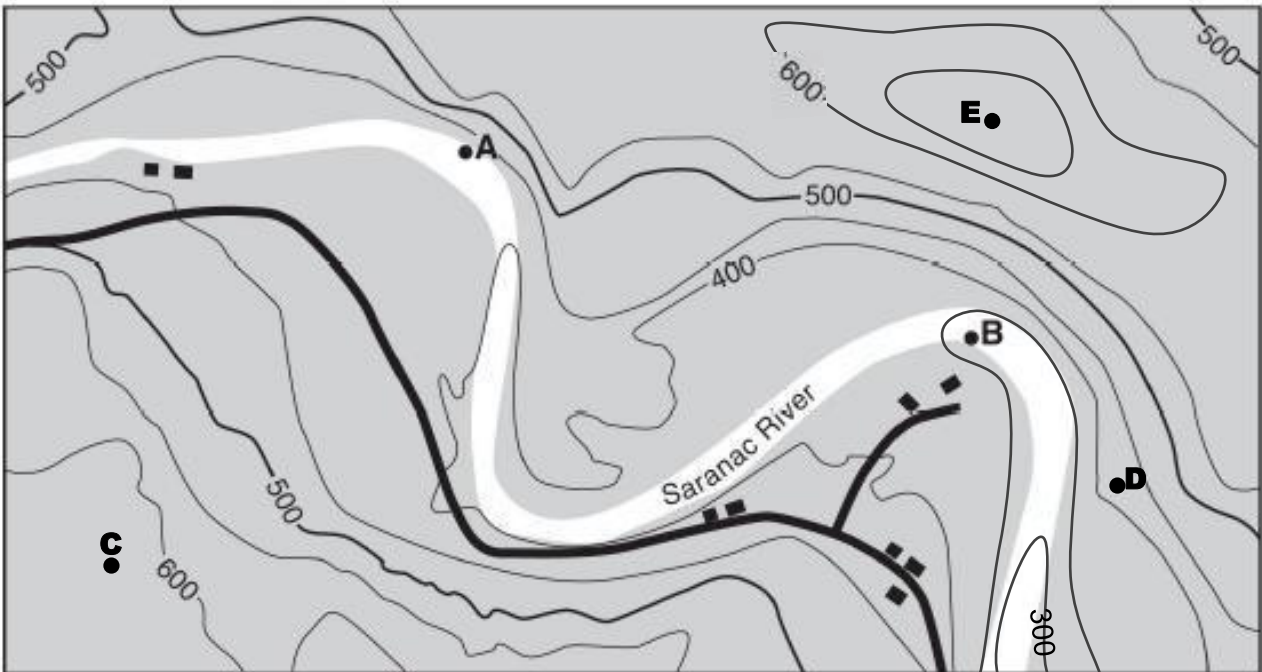
3. 5 feet



4. 10 meters



Task 2: Finding the Value of a Point on a Field Map



Contour interval = 50 ft

0 1 2 3 4 5 miles



5. Circle the answer that best represents the elevation of each of the following points.

Point A 440ft

Point B 345ft

Point C? 630ft

Point D? 420ft

6. highest possible elevation of point E = 699ft

Task 3: Measuring Distances

Use the map on the top of the page to measure the distances between the following points:

7. B to D 2.7 miles

8. B to E 2.8 miles

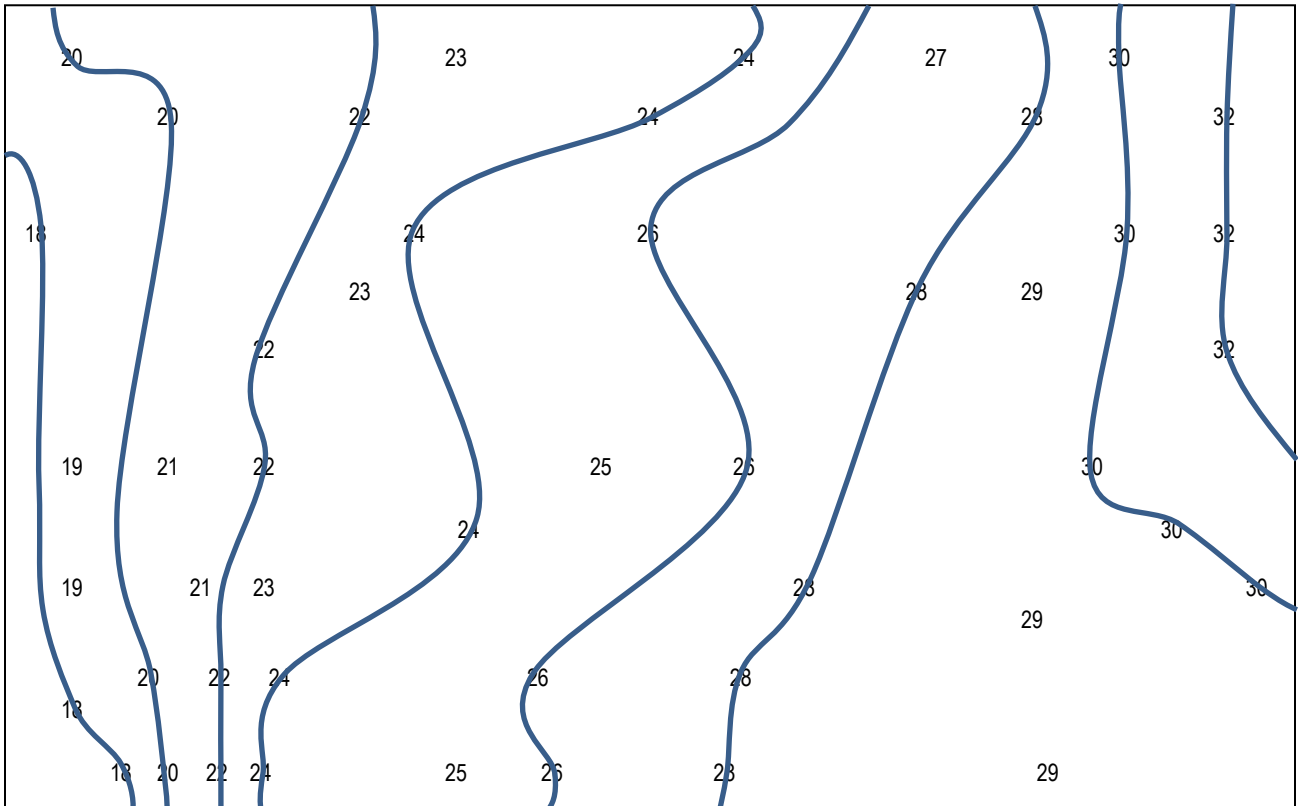
9. A to C 7.1 miles

Task 4: Drawing Isolines

The map below represents temperatures of a field measured in degrees Celsius.

10. isotherms

11. Draw isolines at an interval of 2°C. Start with the 18°C line.



Task 5: Gradients: Greatest (Steepest) versus Least (Most Gradual)

Use the temperature field map above to answer the following questions:

12. greatest temperature gradient - **SW (lines closest together)**

13. least temperature gradient - **SE (lines farthest apart)**

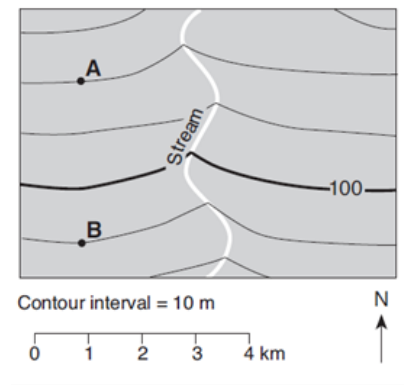
Task 6: Calculating Gradient

14. (3) 10 m/km

Gradient = change in field value / distance

G = 120-90 feet / 3 miles

G = 10 ft/mi

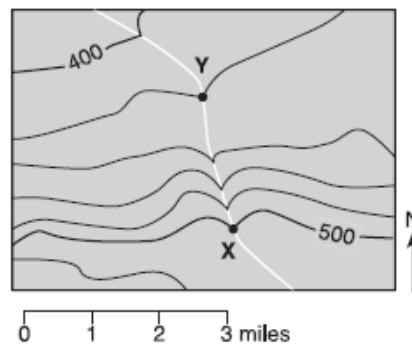


15. Write the formula, substitute data, and solve with correct units.

Gradient = change in field value / distance

G = 500 – 420 feet / 2 miles

G = 40 ft/mi



Task 7: Determining the Direction a River Flows

16. Rivers always flow from high to low elevations. (Rivers flow downhill.)

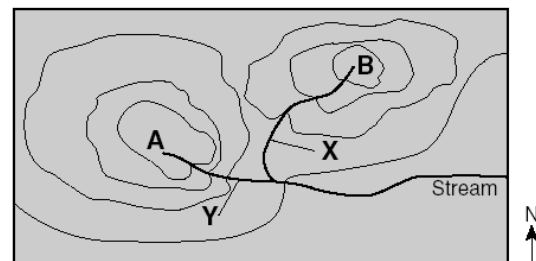
17. Contour lines bend upstream.
(Contour lines make “V-shapes” when crossing a river. The open part of the V points in the direction of river flow.)

18. (3) north to south

19. (3) north

20. River X flows: **from NE to SW (toward the SW)**

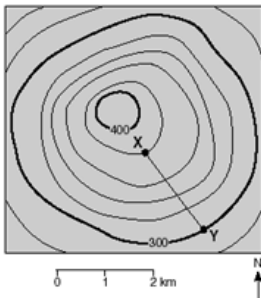
21. River Y flows: **from W to E (toward the E)**
(it is slightly to the SE)



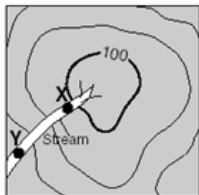
Task 8: Hills versus Depressions

22. 20 meters

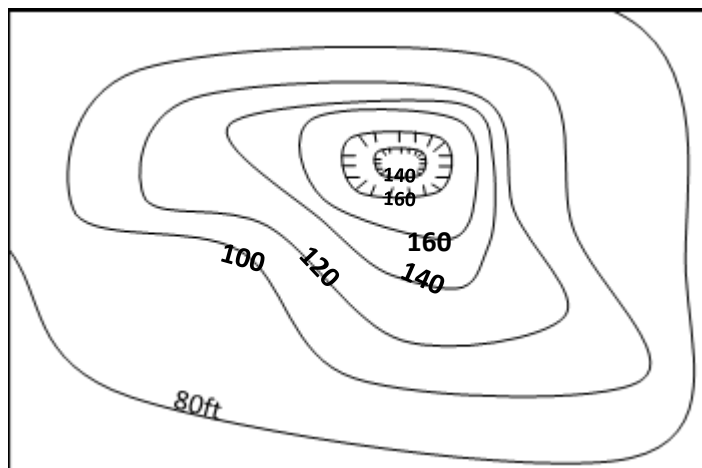
23. 419 meters



24. 149 meters



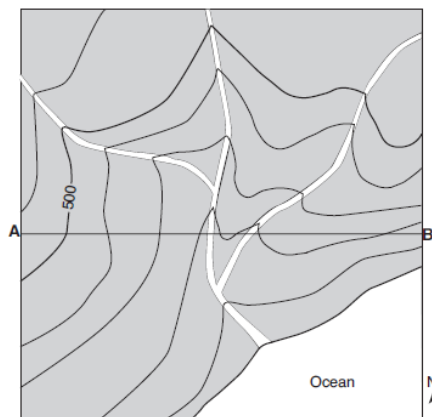
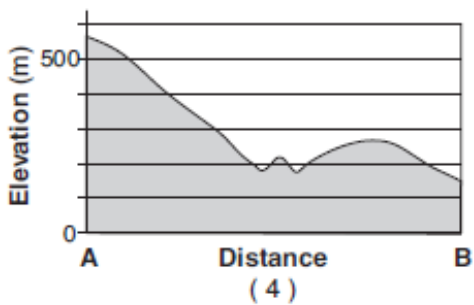
25. The contour interval of the map to the right is 20 feet.



Task 9: Interpreting Topographic Profiles

26. The contour map below shows elevations recorded in meters. Line AB is a reference line on the map.

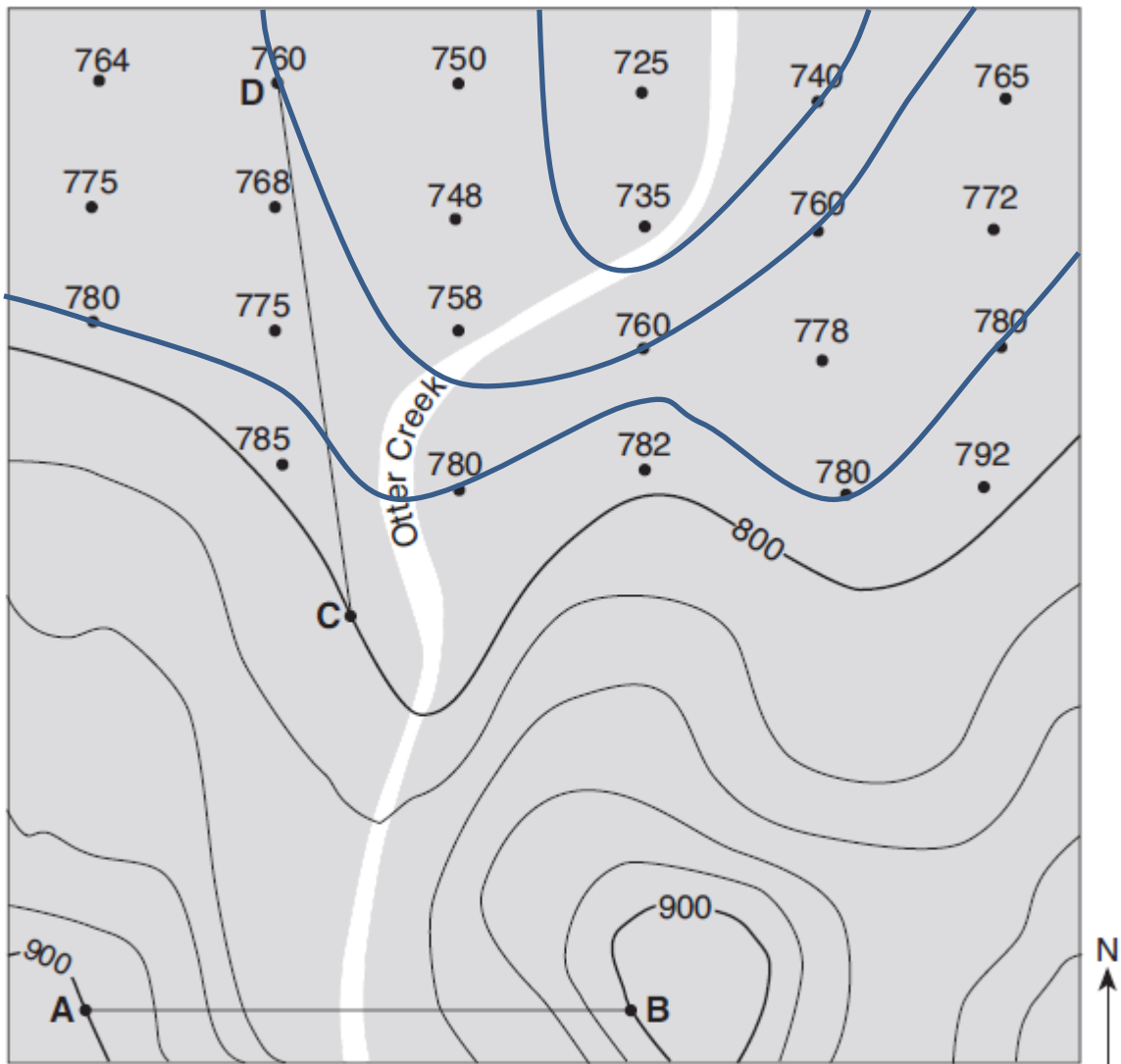
Which graph best represents the profile from point A to point B?



Contour interval = 100 m

Task 10: Drawing a Topographic Profile

27. Draw contour lines for the 780-ft, 760-ft, and 740-ft elevations. Extend your contour lines to the edges of the map.



28. If all of your points fall into the open circles, you would receive full credit.

