

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

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

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## Packet: Topographic Maps and Profiles

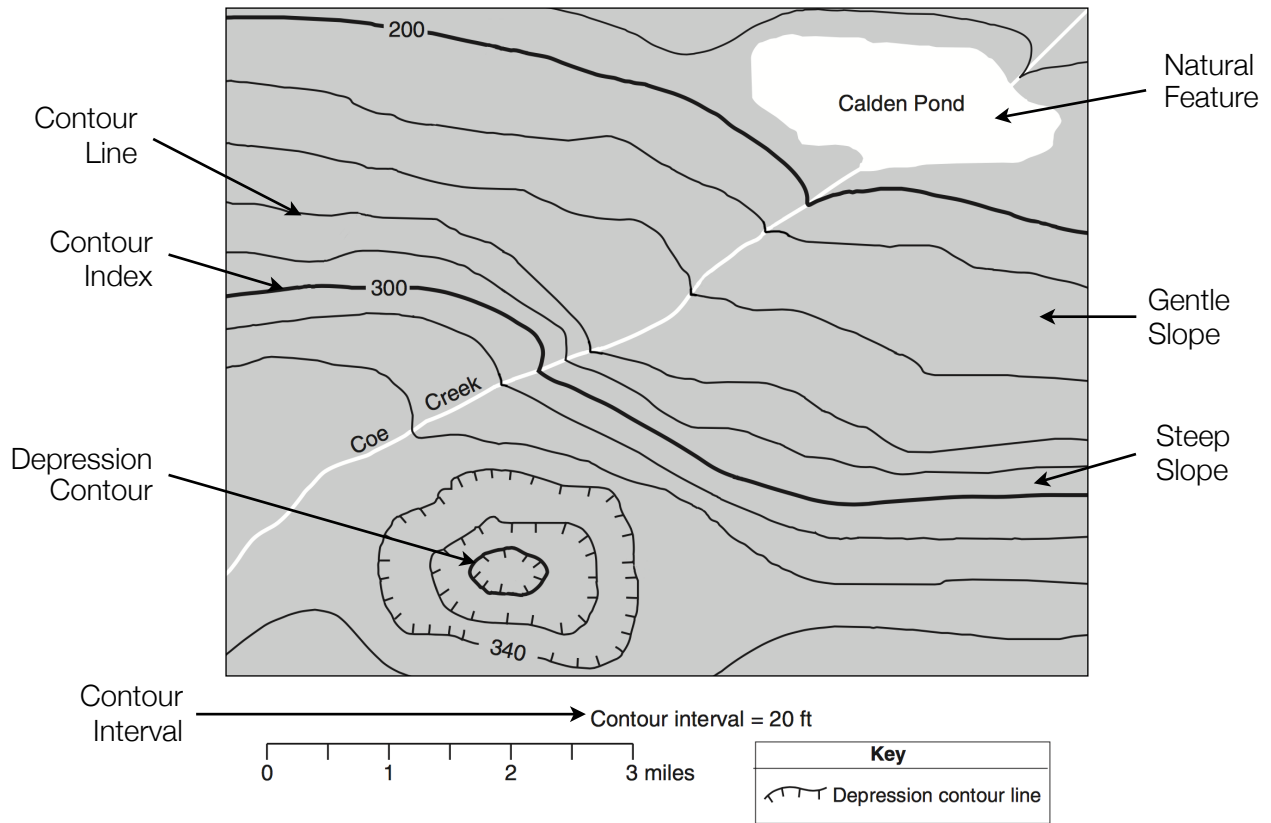
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### CLASS NOTES

- Topographic Maps [contour maps] - \_\_\_\_\_  
\_\_\_\_\_
  - Topographic maps show three-dimensional shapes in two dimensions
- Elevation - \_\_\_\_\_  
\_\_\_\_\_
- Benchmark - a marker that has the exact latitude, longitude, and elevation of that position
  - Labelled on a map as BM.X.
- Natural Features - \_\_\_\_\_  
\_\_\_\_\_
  - Examples: mountains, hills, lakes, and rivers
- Cultural Features - \_\_\_\_\_  
\_\_\_\_\_
  - Examples: roads, cities, buildings, and dams
- Contour Lines - \_\_\_\_\_  
\_\_\_\_\_
- Contour Interval - \_\_\_\_\_  
\_\_\_\_\_
  - The contour interval is usually found on the map key and legend
- Index Contour - \_\_\_\_\_  
\_\_\_\_\_
- Gentle Slope - when contour lines are spaced \_\_\_\_\_ apart
- Steep Slope - when contour lines are spaced \_\_\_\_\_ together
- When contour lines cross a river they bend \_\_\_\_\_
  - Note: rivers flow the opposite direction the contour lines point
- Depression Contours - \_\_\_\_\_  
\_\_\_\_\_
  - This allows you to distinguish a hill from a hole

# Packet: Topographic Maps and Profiles

Topographic Maps with Terms



- Calculating the Highest Point:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

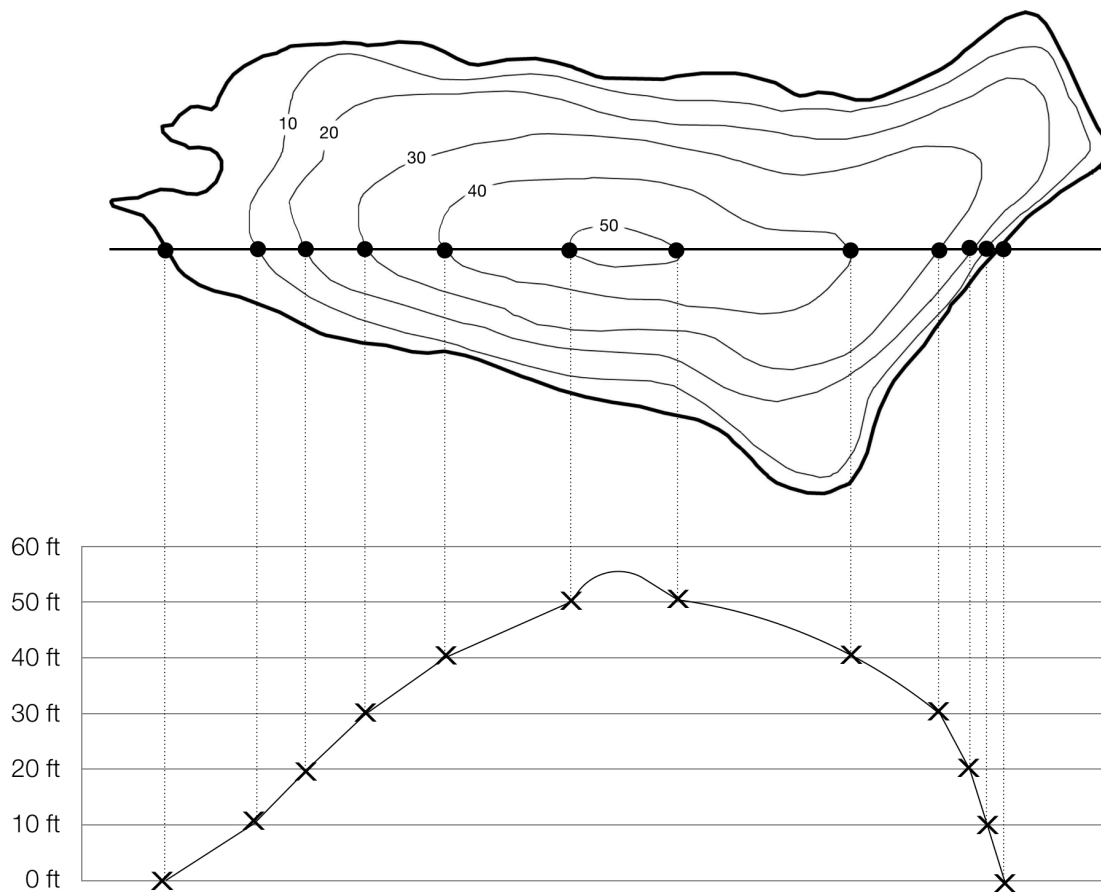
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# Packet: Topographic Maps and Profiles

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- Topographic Profile - \_\_\_\_\_  
\_\_\_\_\_
  
- Creating a Topographic Profile:
  1. You need \_\_\_\_\_ points on a contour map and a horizontal grid between the two points
  2. Transfer the points from the map to the horizontal grid
  3. Connect the points with a \_\_\_\_\_ line to draw a profile

Topographic Profile Example



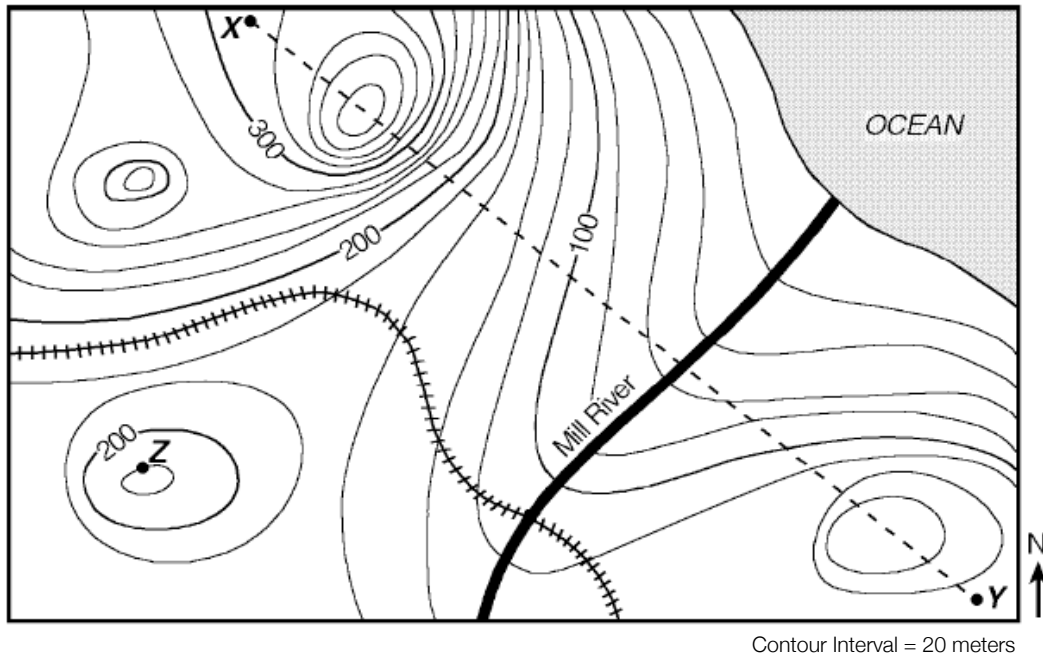
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## PART I QUESTIONS: MULTIPLE CHOICE

Base your answer to questions 1 through 3 on the contour map below. Elevations are shown in meters.



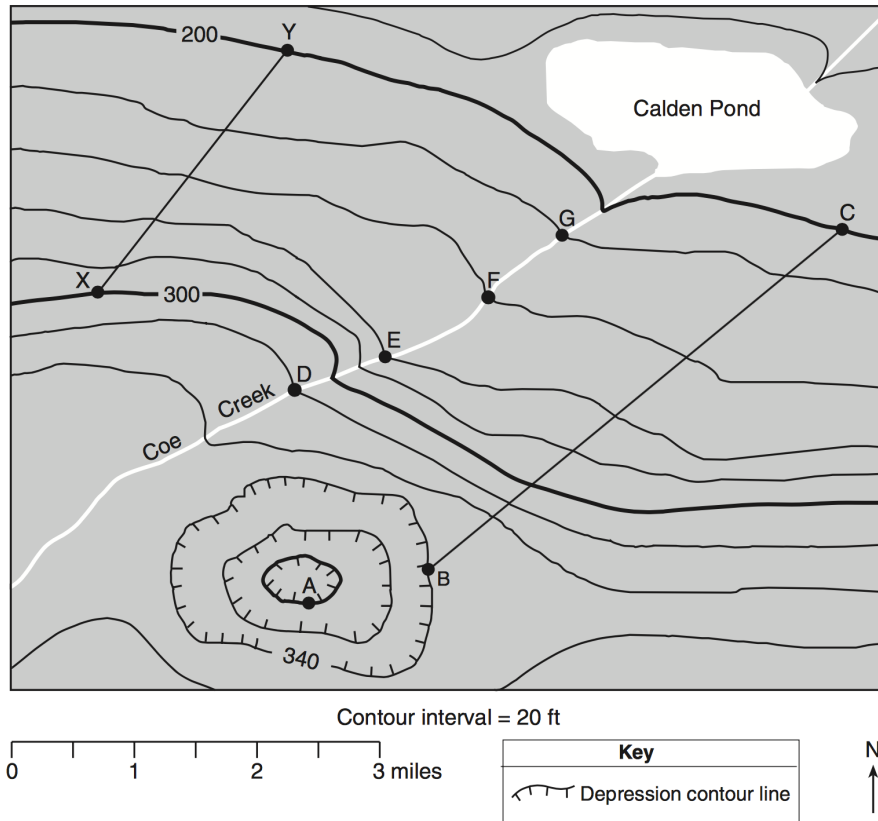
1. What direction does the Mill River generally flow towards?
  - a. southwest
  - b. southeast
  - c. northeast
  - d. northwest
2. What is the elevation of point Z?
  - a. 240 meters
  - b. 220 meters
  - c. 190 meters
  - d. 250 meters
3. What is the highest contour line represented on the map
  - a. 220 meters
  - b. 340 meters
  - c. 380 meters
  - d. 400 meters

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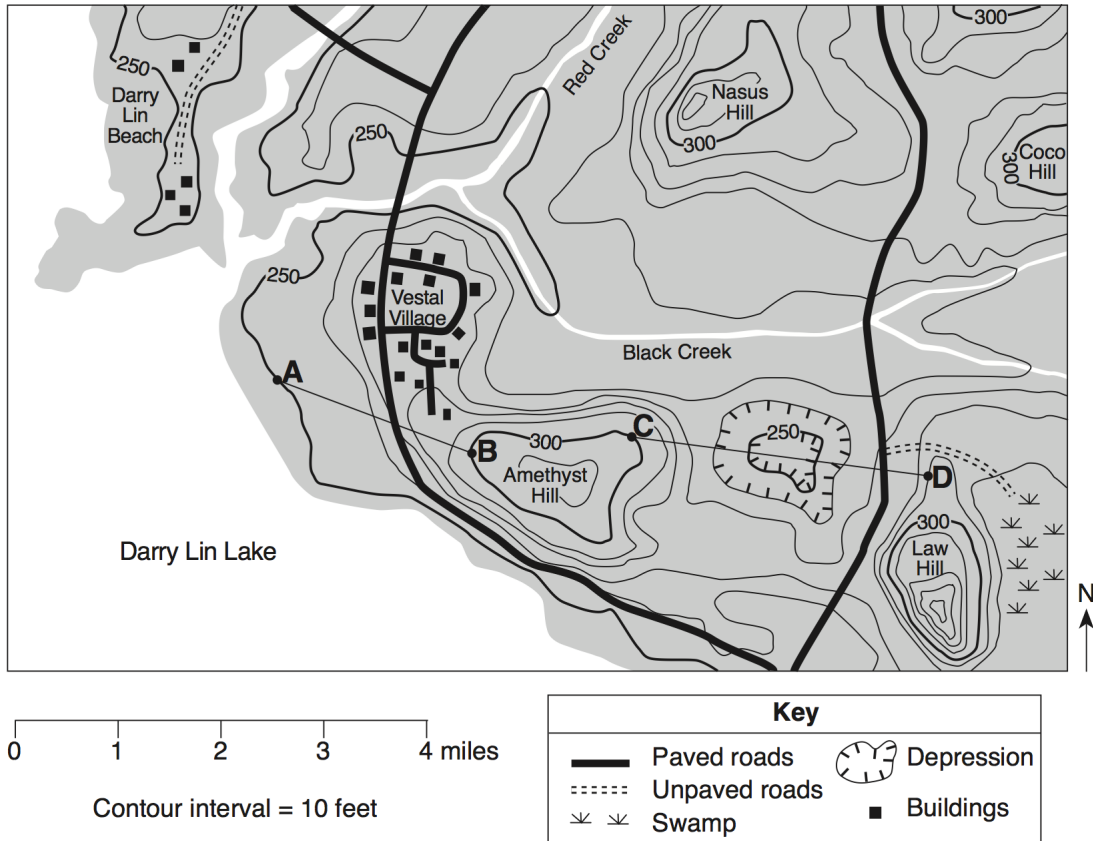
Base your answer to questions 4 through 6 on the contour map below. Letters A through G represent locations on Earth's surface. Elevations are measured in feet.



4. What direction does the Coe Creek generally flow towards?
  - a. southwest
  - b. southeast
  - c. northeast
  - d. northwest
  
5. What is the elevation of point A?
  - a. 340 meters
  - b. 320 meters
  - c. 300 meters
  - d. 280 meters
  
6. What is the gradient between points X and Y?
  - a. 20 ft/mile
  - b. 30 ft/mile
  - c. 40 ft/mile
  - d. 50 ft/miles

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Base your answers to questions 7 through 9 on the topographic map below and on your knowledge of Earth science. Points A, B, C, and D represent locations on the surface of Earth. Elevations are in feet.



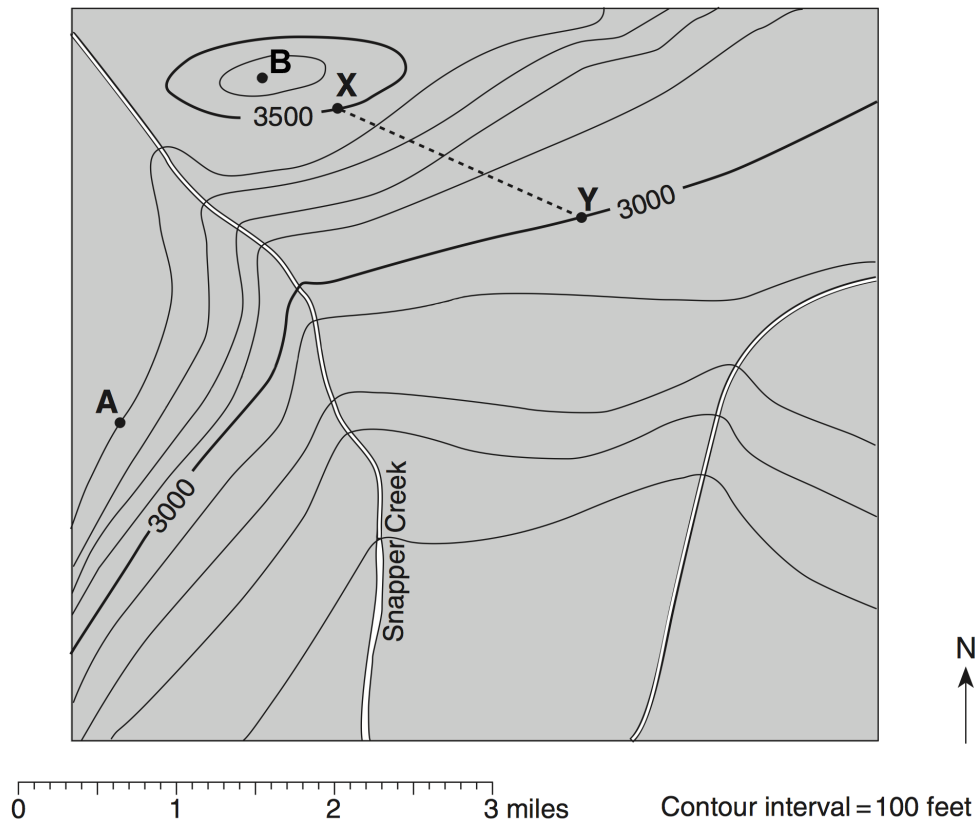
- What direction does the Red Creek generally flow towards?
  - southwest
  - southeast
  - northeast
  - northwest
- What is the approximate gradient from point A to point B on the map?
  - 25 ft/mi
  - 50 ft/mi
  - 75 ft/mi
  - 100 ft/mi
- Which hill has the steepest slope?
  - Amethyst Hill
  - Nasus Hill
  - Coco Hill
  - Law Hill

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Base your answers to questions 10 through 12 on the topographic map below and on your knowledge of Earth science. Points A, B, C, and D represent locations on the surface of Earth. Elevations are in feet.



10. In which general direction does Snapper Creek flow?
  - a. north
  - b. east
  - c. south
  - d. west
  
11. What is the approximate gradient from point X to point Y on the map?
  - a. 238 ft/mi
  - b. 263 ft/mi
  - c. 294 ft/mi
  - d. 333 ft/mi
  
12. What is the maximum elevation at point B?
  - a. 3,599 feet
  - b. 3,699 feet
  - c. 3,799 feet
  - d. none of the above