

High School Advance Geology Map Test 2014 Name _____

Use the information on each map to provide the best answer to the questions.

Fill in the bubble of the best answer on your answer sheet.

Answer questions 1-6 using the **WHITEWATER, WIS Quadrangle.**

WHITEWATER, WIS

1. What is the **fractional scale** (representative fraction) of this map?

- a. 1:24,000
- b. 24,000 inches = 1 mile
- c. 1:62,500
- d. 1 inch = 0.4 miles
- e. 1:100,000
- f. 1:250,000
- g. 1 inch = 1.0 miles

2. What is the approximate **verbal scale** of this map?

- a. 1:24,000
- b. 1 inch = 0.4 miles
- c. 1 inch = 0.6 miles
- d. 1: 62,500
- e. 1 inch = 1.0 mile
- f. 1 inch = 4.0 miles
- g. 1 inch = 11.8 miles

Use the **large maps** to answer questions.

Use these **thumbnails** to help find the proper location on the large map.

3. What is the **name of the landscape features** that are abundant near the town of Hebron?

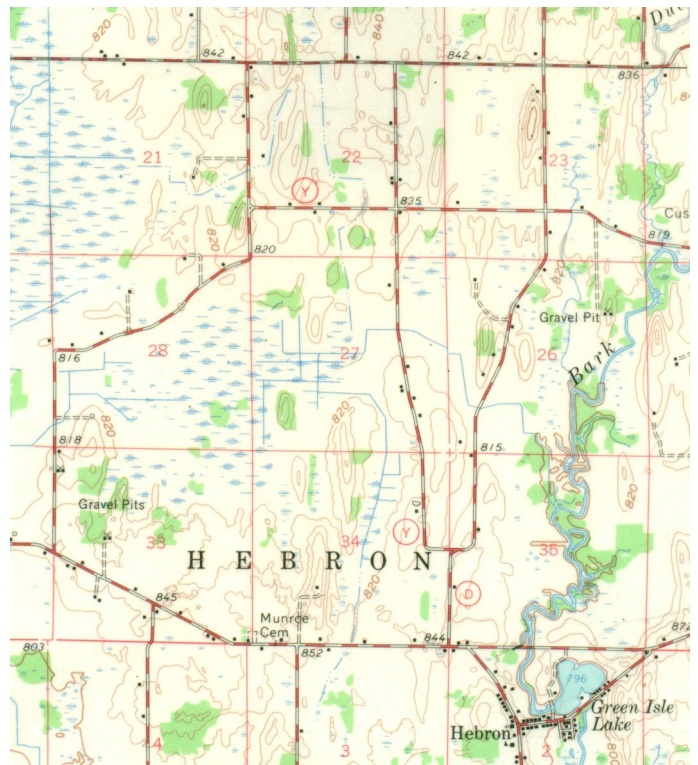
- a. arête
- b. barrier island
- c. tidal flat
- d. dune
- e. drumlin
- f. outwash
- g. alluvial fan

4. **How** were these features formed?

- a. dune migration
- b. river deposition
- c. tidal fluctuations
- d. glacial deposition
- e. wave erosion
- f. emerging shoreline
- g. meteorite impact

5. What is the **general compass direction** for the orientation of this feature?

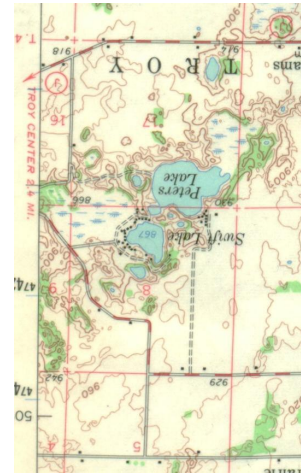
- a. north
- b. northwest
- c. southwest
- d. west
- e. direction of growth cannot be determined



6. **Speculate on the origin** of Swift Lake and Peters lakes near the bottom right of the **WHITEWATER, WIS** Quadrangle.

- a. kettles, kettle lakes
- b. deltas
- c. tarns
- d. paternoster lakes
- e. tributaries
- f. oxbow lakes

You are done with this map.



Answer questions 7-14 using the **GRANDVILLE, MICH** Quadrangle.

GRANDVILLE, MICH

7. What is the **fractional scale** (representative fraction) of this map?

- a. 1:24,000
- b. 24,000 inches = 1 mile
- c. 1:62,500
- d. 1 inch = 0.4 miles
- e. 1:100,000
- f. 1:250,000
- g. 1 inch = 1.0 mile

8. What is the approximate **verbal scale** of this map?

- a. 1:24,000
- b. 1 inch = 0.4 miles
- c. 1 inch = 0.6 miles
- d. 1: 62,500
- e. 1 inch = 1.0 mile
- f. 1 inch = 4.0 miles
- g. 1 inch = 11.8 miles

Use the large maps to answer questions.

Use the thumbnails to help find the proper location on the map.

9. What is the direct **distance (as the crow flies)** between Cummings Sch and Hope Sch?

- a. 1.2 miles
- b. 1.4 miles
- c. 1.6 miles
- d. 1.8 miles
- e. 2.0 miles
- f. 2.2 miles
- g. 2.4 miles

10. What is the **elevation** of Cummings Sch?

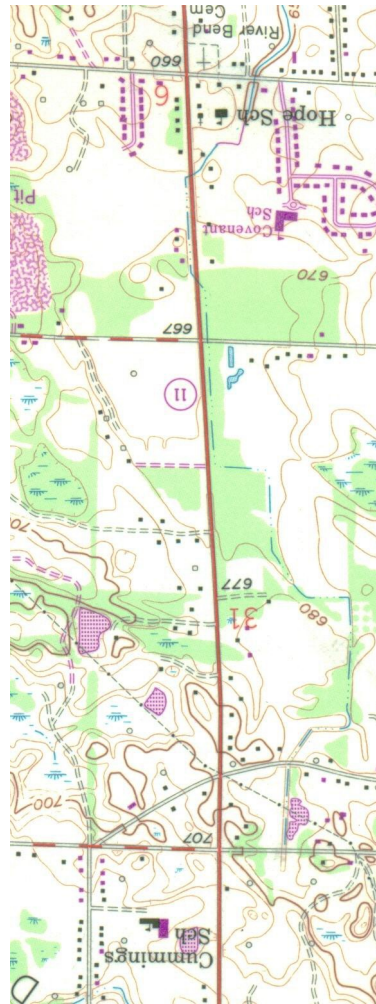
- a. 630 feet
- b. 650 feet
- c. 660 feet
- d. 677 feet
- e. 700 feet
- f. 710 feet
- g. 730 feet

11. What is the topographic **relief** between Cummings Sch and Hope Sch?

- a. 10 feet
- b. 20 feet
- c. 30 feet
- d. 50 feet
- e. 70 feet
- f. 90 feet

12. In general, if a student walked from Cummings Sch and Hope Sch the **gradient** would be? Use your data from above.

- a. 3.5 feet/mile
- b. 40 feet/mile
- c. 44 feet/mile
- d. 47 feet/mile
- e. 53 feet/mile
- f. 530 feet/mile



13. What **vegetation feature** is located in $\frac{1}{4}$ SE $\frac{1}{4}$ SE Section 1 T6N R13W.

- a. woodland
- b. mangrove
- c. wooded marsh
- d. vineyard
- e. scrub
- f. orchard

14. What **water feature** is located in $\frac{1}{4}$ NE $\frac{1}{4}$ NW Section 36 T7N R13W?

- a. small wash
- b. spring
- c. intermittent stream
- d. lake
- e. marsh (swamp)
- f. waterfall

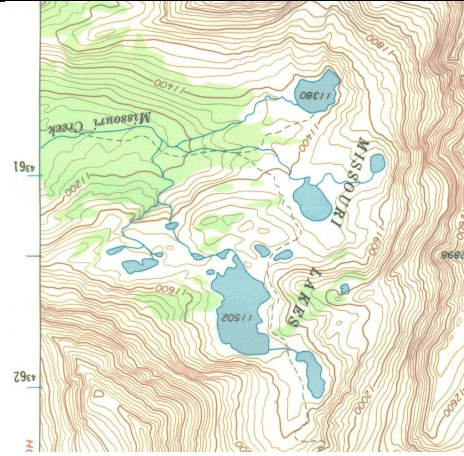
GRANDVILLE, MICH

You are done with this map.

Answer questions 15-23 using the MOUNT JACKSON, COLO. Quadrangle

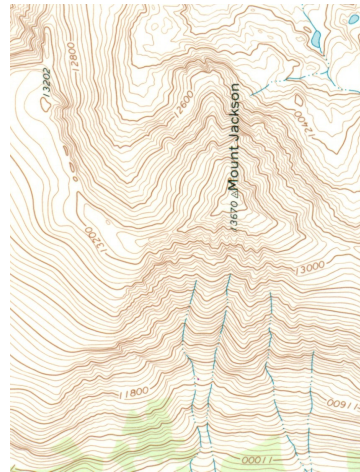
15. What geologic features are the Missouri Lakes?

- a. tarns
- b. sinkhole lakes
- c. kettles
- d. oxbow lakes
- e. cirques
- f. paternoster lakes
- g. moraine-dammed lakes



16. What geologic feature is Mount Jackson?

- a. terminal moraine
- b. arête
- c. col
- d. drumlin
- e. esker
- f. cirque
- g. horn



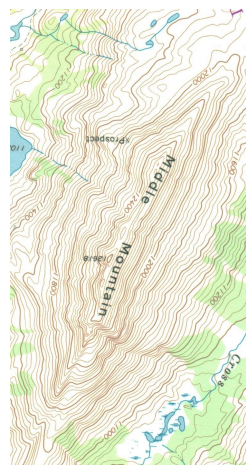
17. What is the bowl-shaped geologic feature just north of Avalanche Peak?

- a. terminal moraine
- b. arête
- c. col
- d. drumlin
- e. esker
- f. cirque
- g. horn



18. What is the geologic feature defined by the narrow ridge of Middle Mountain?

- a. terminal moraine
- b. arête
- c. col
- d. drumlin
- e. esker
- f. cirque
- g. horn



19. Middle Mountain is an example of a ____ between West Cross Creek and Cross Creek?

- a. plateau
- b. erratic
- c. base level
- d. drainage divide
- e. tributary

20. A topographic profile across Cross Creek would produce a ___-shaped valley.

- a. V
- b. U

21. A topographic profile across Last Chance Creek would produce a ___-shaped valley.

- a. V
- b. U

22. What is the distance between Avalanche Peak and Eagle Peak?

- a. 10,700 feet
- b. 10,900 feet
- c. 11,100 feet
- d. 11,300 feet
- e. 11,500 feet

23. What is the relief between Avalanche Peak and Fairview Lake?

- a. 2,000 feet
- b. 2,018 feet
- c. 2,119 feet
- d. 2,911 feet
- e. 2,992 feet

Answer questions 24-28 using the KEO, ARK. Quadrangle.

24. What **channel type** is Plum Bayou down the center part of the map?

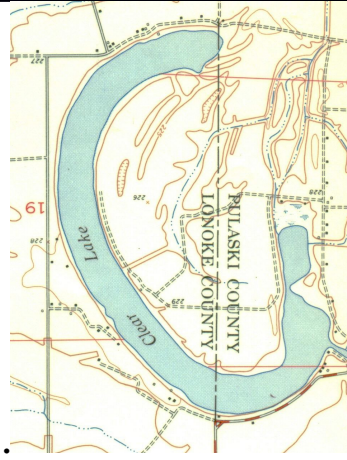
- a. annular
- b. meandering
- c. radial
- d. braided
- e. dendritic
- f. trellis
- g. rectangular

25. What is the **origin** of Clear Lake?

- a. abandon oxbow lake
- b. kettle flooded by groundwater
- c. braided stream in outwash
- d. glacier formed paternoster lake
- e. sinkhole lake
- f. freshwater in playa
- g. deposition of deltaic sediments

MOUNT JACKSON, COLO

You are done with this map.



26. What section is Macedonia Chapel in?

- a. 13
- b. 14
- c. 23
- d. 24

27. What quadrant of the section is Macedonia Chapel in?

- a. NE
- b. SE
- c. SW
- d. NW

28. What is the township and range of Macedonia Chapel?

- a. T1S, R9W
- b. T2S, R9W
- c. T1S, R10W
- d. T2S, R10W

Use the topographic map below for questions 29-35. The contour interval is 40 meters. Note some contours have hachure marks. The ocean is shaded light gray.



29. What is the elevation at a.?

- a. 40 m.
- b. 80 m
- c. 120 m
- d. 160 m
- e. 200 m
- f. 240 m
- g. 280 m

30. What is the elevation at b.?

- a. between 40-80 m.
- b. between 80-120 m
- c. between 120-160 m
- d. between 160-200 m
- e. between 200-240 m
- f. between 240-280 m
- g. between 280-320 m

31. What is the elevation at c.?

- a. 40 m.
- b. 80 m
- c. 120 m
- d. 160 m
- e. 200 m
- f. 240 m
- g. 280 m

32. What is the elevation at d.?

- a. between 40-80 m.
- b. between 80-120 m
- c. between 120-160 m
- d. between 160-200 m
- e. between 200-240 m
- f. between 240-280 m
- g. between 280-320 m

33. Could a person at location “d” see a person at “b”?

- a. yes
- b. no
- c. not enough information given

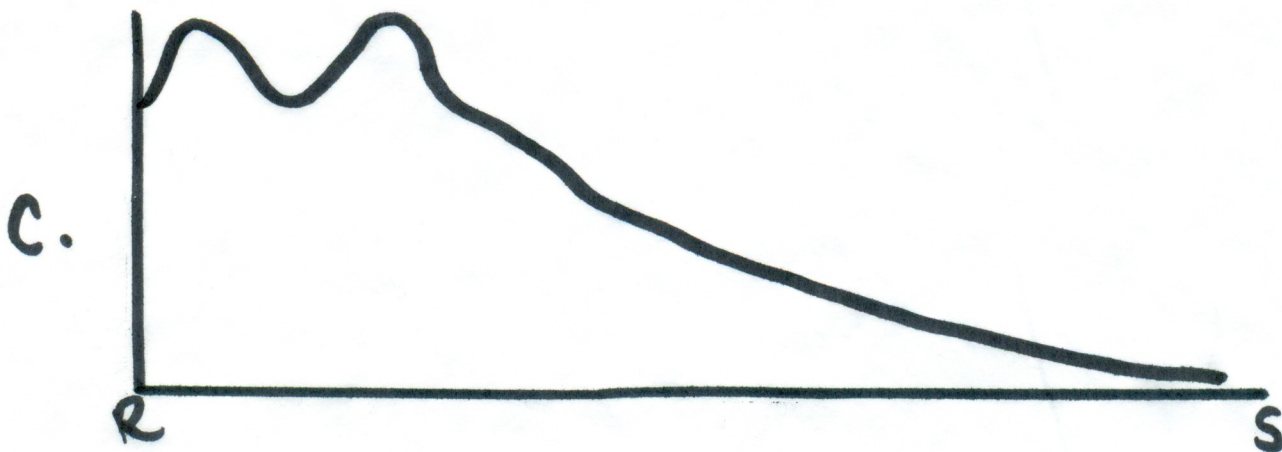
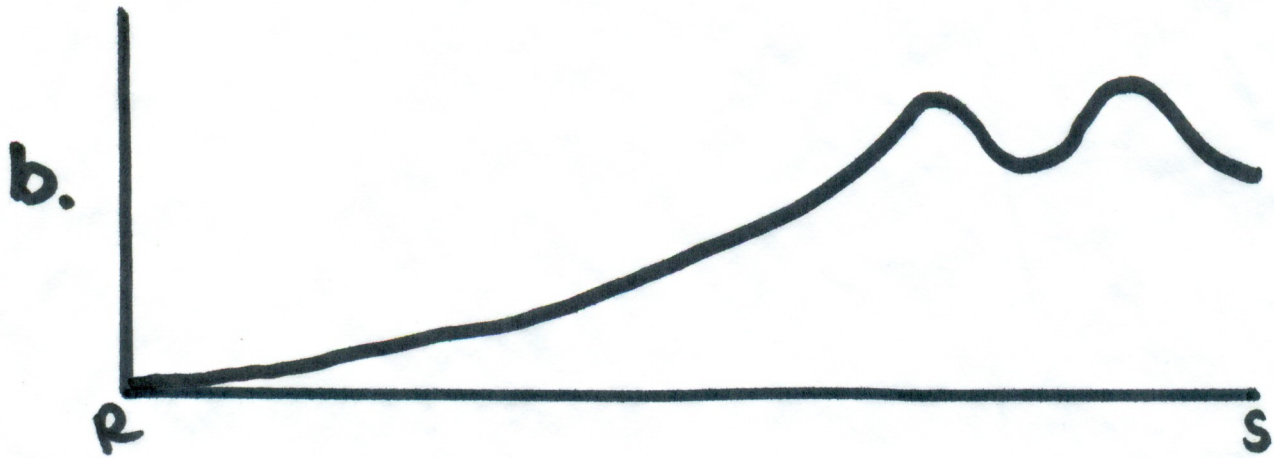
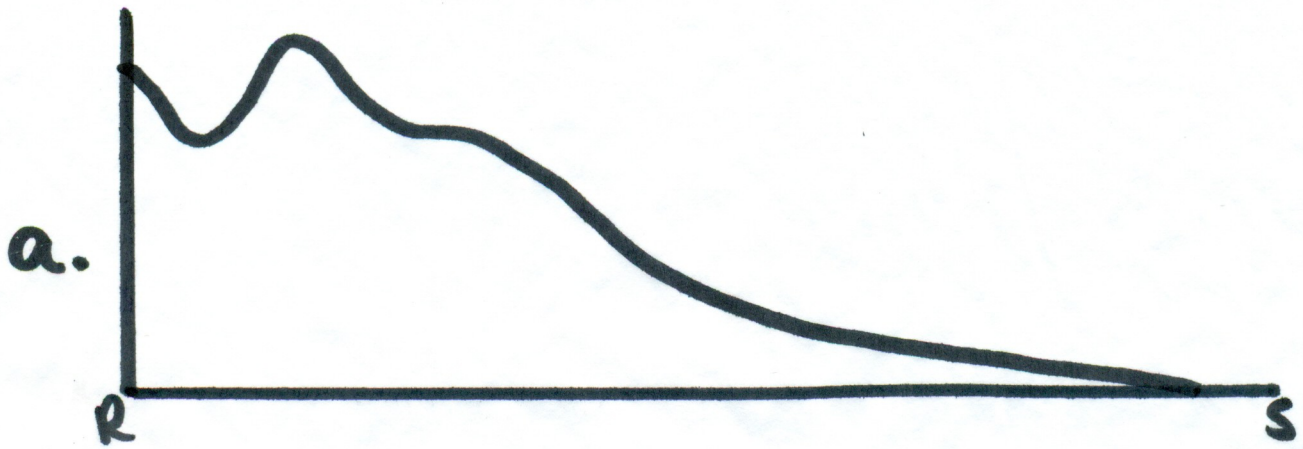
34. Could a person at location “d” see a person at “a”?

- a. yes
- b. no
- c. not enough information given

35. Overall, which of the following is the most accurate topographic profile from point R to S?

- a. a
- b. b
- c. c
- d. d

see profiles on next page.



the topographic map below for questions 36-40. Elevations are in feet. Note some contours have hachure



36. What is the contour interval of the map?

- a. 5 ft.
- b. 10 ft.
- c. 20 ft.
- d. 50 ft.
- e. 1000 ft.
- f. not enough information

37. What is the elevation at a.?

- a. 260 ft.
- b. 280 ft.
- c. 290 ft.
- d. 300 ft.
- e. 310 ft.
- f. 320 ft.
- g. 340 ft.

38. What is the elevation at b.?

- a. 240 ft.
- b. 250 ft.
- c. 260 ft.
- d. 280 ft.
- e. 290 ft.
- f. 300 ft.
- g. 310 ft.

39. What is the elevation at c.?

- a. 260 ft.
- b. 280 ft.
- c. 290 ft.
- d. 300 ft.
- e. 310 ft.
- f. 320 ft.
- g. 340 ft.

40. Overall, which of the following is the most accurate topographic profile from point T to V?

- a. a
- b. b
- c. c
- d. d

see profiles on next page.

Thank you for your hard work!

