

B - Road Scholar - Nov 7 Country-wide SO Practice - 11-07-2020

1. (1.00 pts) How many seconds are in a minute?

- A) 60
- B) 3600
- C) 10
- D) 360

2. (1.00 pts) How many seconds are in a degree?

- A) 60
- B) 100
- C) 360
- D) 3600

3. (1.00 pts) How many minutes are in a degree?

- A) 3600
- B) 60
- C) 100
- D) 360

4. (1.00 pts) 1 mile is equal to approximately how many kilometers?

- A) 1609
- B) 1000
- C) 1.609
- D) 1.000

5. (1.00 pts) How many meters is 523 kilometers?

- A) 523,000
- B) 324.977
- C) 324,977
- D) 0.52300

6. (1.00 pts)

The peak of a mountain is 5238 ft. If the base of a mountain is at 200 ft. and the straight line horizontal distance between the two points is 0.25 miles, what is the gradient?

- A) 3.82
- B) 4.12
- C) 2.18
- D) 2.15

7. (1.00 pts) If you were planning a hiking trip, which map would you want to bring?

- A) Climatic
- B) Atlas
- C) Topographical
- D) Thematic

8. (1.00 pts) If you were interested in the population density of the United States, what type of map would you use?

- A) Climatic
- B) Atlas
- C) Topographical
- D) Thematic

9. (1.00 pts) What are measurements of depth called?

- A) Monuments
- B) Altitude
- C) Elevation
- D) Soundings

10. (1.00 pts) You are planning an intrastate road trip. What scale do you want your map to be?

- A) 1:25,000
- B) 1:250,000
- C) 1:2,500,000
- D) 1:10,000,000

11. (1.00 pts) How many states are in the contiguous United States?

- A) 51
- B) 50
- C) 49
- D) 48

12. (1.00 pts) What ocean borders the eastern United States?

- A) Indian Ocean
- B) Atlantic Ocean
- C) Arctic Ocean
- D) Pacific Ocean

13. (1.00 pts) In which body of water does the Mississippi River terminate?

- A) Caribbean Sea
- B) Atlantic Ocean
- C) Gulf of Mexico
- D) Pacific Ocean

14. (1.00 pts) What mountain range is found in the eastern United States?

- A) Rocky Mountains
- B) Sierra Nevada
- C) Appalachian Mountains
- D) None of the above

15. (1.00 pts) What is the largest state in the United States?

- A) Montana
- B) California
- C) Texas
- D) Alaska

16. (1.00 pts) What is the smallest state in the United States?

- A) Hawaii
- B) Rhode Island
- C) Delaware
- D) Maryland

17. (1.00 pts) What is the capital of California?

- A) Fresno
- B) San Francisco
- C) Los Angeles
- D) Sacramento

18. (1.00 pts) What is the capital of the United States?

- A) Annapolis, M.D.
- B) Washington, D.C.
- C) Denver, C.O.
- D) New York, N.Y.

19. (1.00 pts) The land division method of longlots pre-dates the Public Land Survey System.

- True
- False

20. (1.00 pts) Which major river terminates near New Orleans?

- A) Rio Grande
- B) Mississippi
- C) Colorado
- D) Missouri

21. (1.00 pts) Representative fractions scale with the map.

- True
- False

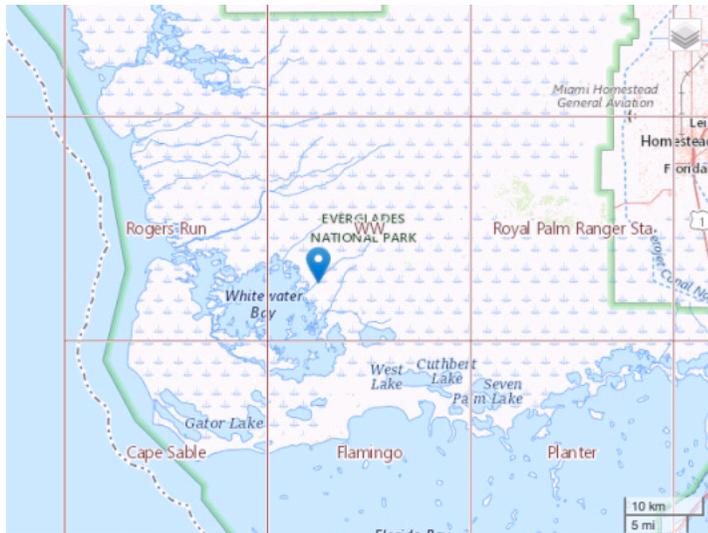
22. (1.00 pts) Verbal scales scale with the map.

- True
- False

23. (1.00 pts) The magnetic north pole is always the same as the geographic North Pole.

- True
- False

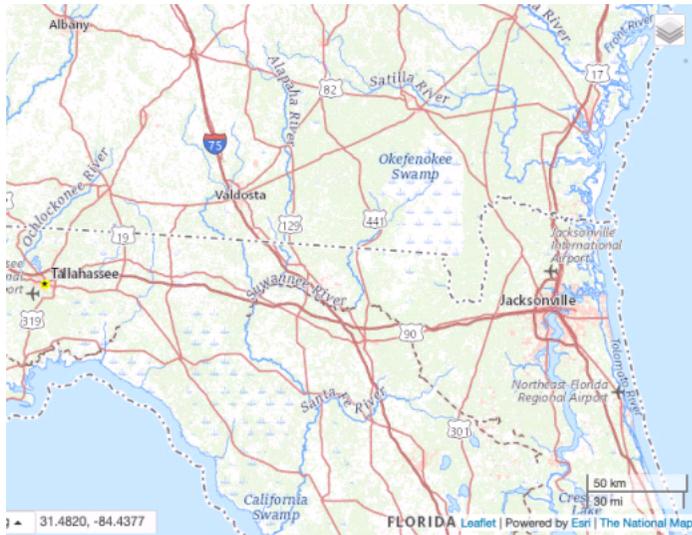
24. (2.00 pts)



What can you infer about the land that makes up this part of Florida?

Expected Answer: It is mostly wetlands.

25. (2.00 pts)



What is the name of the highway that runs between Jacksonville and Tallahassee?

Expected Answer: US 90

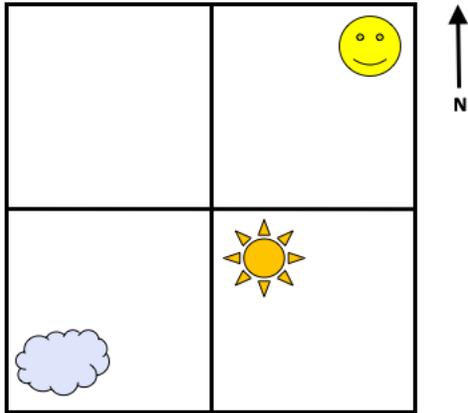
26. (2.00 pts)



Describe the topography of this region.

Expected Answer: It is very high elevation with creeks and/or rivers flowing down towards the lower elevations. It has a very steep edge indicating possibly a plateau. The region with the widely spaced contour lines would be very flat, while the closely spaced contour lines are very steep.

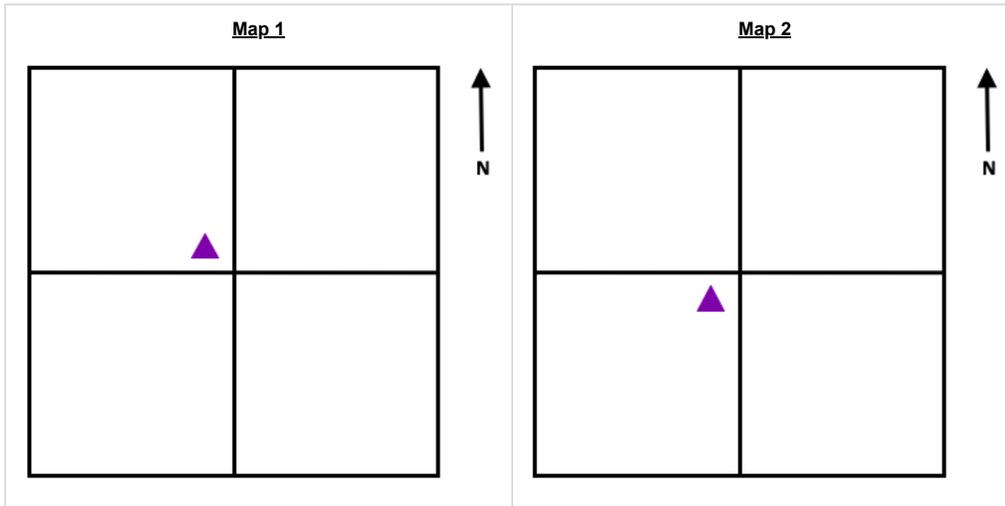
27. (6.00 pts)

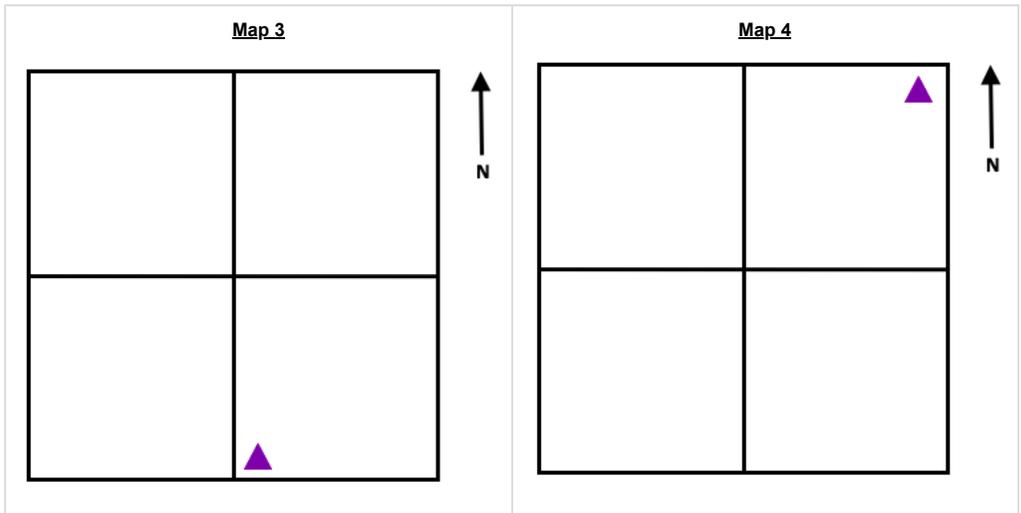


Describe the location of the cloud, smiley face, and sun in terms of the Public Land Survey System. Make sure to specify which is which!

Expected Answer: The cloud is in the SW1/4 SW 1/4. The sun is in the NW1/4 SE1/4. The smiley face is in the NE1/4 NE1/4.

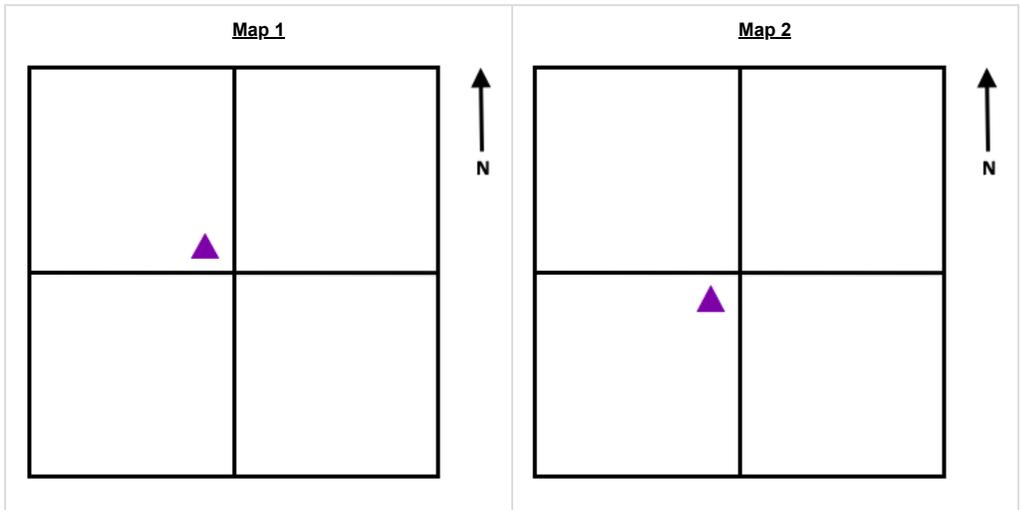
28. (3.00 pts) Which of the following choices has the triangle located in the quadrant described as SE1/4 SE1/4 NW1/4?

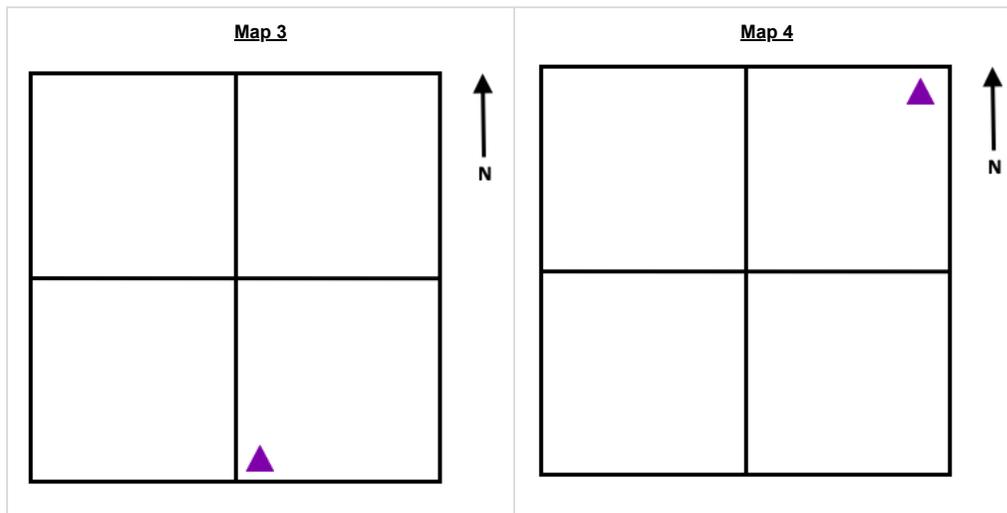




- A) Map 1
- B) Map 2
- C) Map 3
- D) Map 4

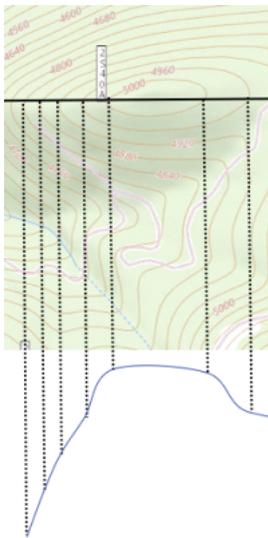
29. (3.00 pts) Which of the following choices has the triangle located in the quadrant described as NE1/4 NE1/4 SW1/4?





- A) Map 1
- B) Map 2
- C) Map 3
- D) Map 4

30. (1.00 pts) This is a reasonable profile of the topography along the solid black line.



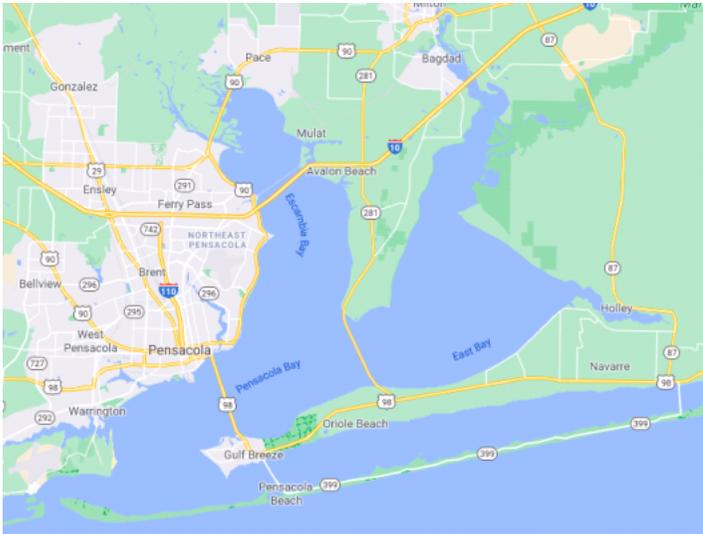
- True
- False

31. (1.00 pts) What is the art of drawing maps called?

- A) Geographic Information Science
- B) Cartography
- C) Geography
- D) Surveying

32. (5.00 pts)

Hurricane Sally recently hit the Florida Panhandle and as a result of the damage, the bridge on Highway 98 connecting Gulf Breeze to Pensacola is no longer usable.



Describe several alternative paths someone could take if they were trying to travel from Oriole Beach to Ferry Pass. Be specific when referring to the roads and directions.

Expected Answer: Someone trying to travel from Oriole Beach to Ferry Pass could take State Road 281 northbound to Interstate-10. They could travel on I-10 until they reach State Road 291, at which point they will be in Ferry Pass. Additionally, they could also take Highway 98 eastbound and then Highway 87 north until they reach either Interstate-10 or Highway-90, at which point they could travel westbound until they reach Ferry Pass.

33. (1.00 pts) This is a satellite image of part of California.



The Sierra Nevada Mountains make a distinct line between vegetation and desert. What type of desert is this?

- A) Monsoon
- B) Subtropical
- C) Mid-latitude
- D) Rain shadow

34. (5.00 pts) What is the name of these types of lakes and what causes them?



Expected Answer: They are called oxbow lakes and they are formed by the meandering of rivers. Rivers do not have set paths--they move over time. Eventually, the path may cross and cut off part of the river, resulting in an oxbow lake.

35. (2.00 pts) If the scale of a map is 1:2400, which of the following are equivalent?

(Mark ALL correct answers)

- A) 1 in = 200 ft
- B) 1 cm = 24 m
- C) 5 in = 1000 ft
- D) 1 in = 24 m

36. (5.00 pts) The coordinates of Shreveport, Louisiana are 32 degrees, 31 minutes, and 30.72 seconds. What is this in decimal degrees? Explain how you convert it.

Expected Answer:

37. (10.00 pts) What are some "must have" features of a good map?

Expected Answer: A way to indicate north (a north arrow, latitude/longitude lines), a scale of some sort, a legend, a title, a data source.

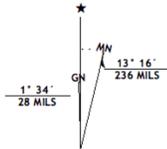
38. (4.00 pts) What does magnetic declination describe? Why do you need to know the magnetic declination if you're using a compass?

Expected Answer: It describes the deviation from magnetic and geographic north. The compass will point to magnetic north, which isn't necessarily geographic north and thus might not be the direction you are actually wanting to go.

39. (10.00 pts) Why does Greenland and Antarctica look massive on certain maps, but not on others? Be as specific and detailed as possible.

Expected Answer: It depends on the map projection. Some maps preserve area, which wouldn't distort Greenland and Antarctica so much.

40. (1.00 pts) This map feature is found on the quadrangle for Yosemite Valley. What does it indicate?



Expected Answer: Magnetic declination

41. (1.00 pts) You begin hiking at a heading of 273 degrees. You realize you forgot your water bottle back at the campsite! What heading do you use to return to the campsite?

Expected Answer: $273 - 180 = 93$ degrees

42. (2.00 pts)

Your destination is 750 km away. If your average speed is 60 mph, how many hours will it take to reach your destination at minimum? Round to the nearest whole number.

Expected Answer: 8 hours

43. (2.00 pts) Lines of ____ converge at the poles.

longitude

44. (1.00 pts) A ____ is used to maintain bearing at sea.

pelorus

45. (1.00 pts) How many sections are in a township?

Expected Answer: 36

46. (5.00 pts) What is the contour interval? What is the highest elevation? Assume the units are meters. What kind of terrain do you think this is?



Expected Answer: Contour interval is 20 m. Highest elevation is 1060 m. This is mountainous terrain.

47. (3.00 pts) The coordinates of Las Vegas are 36.1699° N, 115.1398° W. What is this in degrees, minutes, and seconds? Explain how you convert it.

Expected Answer:

48. (1.00 pts) What is the difference between contour lines and index contour lines?

Expected Answer: Index contour lines are bold and display the elevation.

49. (3.00 pts) What kind of feature runs parallel to Lemons Bridge Road? What is the topography of this area like?



Expected Answer: Railroad. Flat wetlands

50. (1.00 pts) This is a satellite image of part of New York City. Assume it is oriented north. What time of day was this most likely taken?

Expected Answer: Between 9 and 10.

51. (2.00 pts) Why is it important to indicate direction (N, S, E, W) when referring to coordinates of a location?

Expected Answer: Clarity. It will refer to completely different parts of the world without the directional component.

