

The Great Adventures of Mikey and Millie

Mikey decided to take a road trip to explore some magnificent landmarks. He loaded up the car, gathered his topographic and road maps and set out on his journey.

***All of the original maps in the packet are available to view upon request. The numbers in the blanks correspond to the question number on your response sheet.**

Map 1: Washington West D.C./Virginia

After hours on the road, Mikey has reached his first destination. He decided to meet up with his longtime friend Millie. Millie is a professor at Georgetown University. From the Visitation Convent on 35th street they walked “as the crow flies” _____1_____ miles to the White House, which would be _____***Tie Breaker***_____ Km. From the White House they walked to the Lincoln Memorial and from their map they determined the azimuth to be _____2_____. After updating their social media with many pictures, they took a stroll over to the Washington Monument and determined the elevation at the monument to be _____3_____ ft. Next they decided to visit the magnificent Hope diamond at the Smithsonian Institution. They found the Smithsonian to have a bearing of _____4_____ from the White House. Millie couldn’t help but think of all the nice jewelry that diamond would make and of course how nice it would look on her. After the Smithsonian, Mikey and Millie were exhausted and decided to get some rest before heading west in the morning. Millie had so much fun she decided to join Mikey on his adventure.

Map 2: Jenks, Oklahoma

After all the excitement of Washington D.C., Mikey couldn’t wait to tell his favorite uncle Ralphie all about it. His uncle Ralphie works in the oil field in Jenks, Oklahoma. According to his map, the contour interval of the Jenks map is _____5_____. The contour interval is small because _____6_____. He also noticed the longitude range for the Jenks is _____7_____. He remembered from his favorite social studies that the direction is measured in reference to _____8_____. After great conversation and a little lunch, Mikey hugged his uncle goodbye and headed west.

Map 3: Furnace Creek, California

After a few days on the road, they finally made to California. This was a first for Mikey. On their way into Furnace Creek, CA Mikey and Millie stopped to check out Mushroom Rock which has an elevation of _____9_____ ft. and is located _____10_____ sea level. After looking at his map, Mikey noticed his map was missing the marginal information. Since he coaches the Road Scholar event for his school’s Science Olympiad team, he was able to determine the contour interval to be _____11_____ ft. They decided to save money and stay at the Texas Spring Camp ground. This was a true test of their will. The temperatures climbed to 115°F. They now understand how Death Valley acquired its name.

Map 4: Crater Lake, Oregon

Mikey and Millie made it to Crater Lake. They took a cruise on a pontoon boat and explored the lake. They found the deepest part of Crater Lake is _____12_____ ft. After exploring the lake, they were looking for a good spot to climb ashore and see either Devils Backbone or Chaski Bay. They chose _____13_____ because it is less steep and probably safer. They drove back to Lost Creek campsite, in section _____14_____ of T31S and R7E. They sat by the fire to make s’mores before heading to Washington in the morning.

Map 5: Grand Coulee Dam, Washington

Mikey and Millie's next stop was Grand Coulee Dam. Mikey was certain this was the largest man made structure he has ever seen! Looking at the dam, they also noticed many _____15_____ coming from the north and west side of the pumping plant. After their tour of the plant and meeting the dam operator, they decide to canoe down Seaton Canyon. Seaton Canyon is flowing _____16 (direction)_____. From beginning to end, the river at Seaton Canyon has a relief of _____17_____ ft.

Map 6: Mt. Rainier, Washington

Mikey and Millie have finally reached their last destination, the beautiful Mt. Rainier. Mikey decided to take some pictures of the _____18_____ radiating from Columbia Crest. After taking some pictures of Columbia Crest (center of the map), he wondered how far it was from Columbia Crest to Lake George (Bottom left corner of the map.) He measured the distance on the map to be _____19_____ cm and determined that it would equal _____20_____ cm on the ground. They stopped and enjoyed the sites of the many falls on their route. Millie noticed they passed a location marked ^{BM}X₆₉₆₅ on the map and identified it to be a type of Survey Control Mark known as _____21_____. After a day of rest and relaxation the journey came to an end and the pair headed back east.

Michigan Road Map:

22. Determine the distance between these paired cities

Detroit to Marquette

23. What letter-number combination indicates the proximity of Saginaw?

24. What direction do two digit even numbered interstate highways run?

25. What county would you find Gaylord?

26. What does the red tree symbol represent just north of Ludington?

Student-Created Map Design:

27. Using the Public Land Survey System grid on your response sheet, draw a school that is in the SE $\frac{1}{4}$, NE $\frac{1}{4}$, sec. 17, T2S, R2W and a depression in the NW $\frac{1}{4}$, SE $\frac{1}{4}$, sec. 12, T2S, R3W and a perennial pond approximately 4 miles north of the school.

Tie Breaker question #2:

28. How many 7.5 minute maps are required to cover an area of one-degree latitude by one degree longitude?

Tie Breaker #3 will be based on time. In case of a tie after the two tie breakers, the order the test was completed and turned in will be the final tie breaker. The test that was completed and turned in first will score above the others in the tie.