The Louis and Bark Expedition

Road Scholar Practice Test By: William Pan

Hey there! My name's Louis, and this is my dog, Bark. We're going to explore the barren mountains of Montana and Idaho, but we need your help! We're going to start in St. Louis, but I have my own private airplane to fly to Forsyth, Montana myself. Take out your highway map and lead me to the airport!

Missouri Highway Map: St. Louis Inset

1. What city is Spirit of St. Louis Airport located in? The answer is NOT St. Louis.

2. What is the closest Interstate highway to this airport?

3. On this highway, what Exit should I take to reach the airport?

5 hours later…

Vanstel Quadrangle, Montana

Ah! We're in Montana now, Bark! Let's go to the mountains now. First, though, I need to set my compass correctly.

4. What is the magnetic declination of this map?

There! We can head off to some of Montana's mountains! Come along, Bark!

5. I have to know how steep these mountains really are. What is the contour interval of this map?

6. Bark and I are coming in from the South. What quadrangle is south of this one?

7. I'm driving the Jeep I rented from the airport. The last city we passed was called "Vananda". When we enter this quadrangle from the South neat line at Sector 8/9, how far away are we from this city?

8. Let's see if you're actually helping me: what kind of road am I driving on right now?

Alright, it's our first stop from our long drive! Bark and I are at Halvorson Hot Spring. We take some time to soak in the heat that's coming out of it.

9. What are the latitudinal and longitudinal coordinates of this hot spring? Measure the coordinates of the center of the small blue circle.

After stopping at this hot spring, Bark and I are just going to pass by Vanstel Cemetery.

10. How many miles away from the hot spring is the cemetery?

11. Next, we're going to see if we can go see Blacktail Butte up close. What is the PLSS of this landmark, to three quarters?

12. What type of control mark is the 3447ft elevation mark next to the butte?

13. I want to know if we can row up to the butte with a boat I rented back in the city. Is the creek (starts from just North of the words "Blacktail Butte") perennial or intermittent?

14. Find the stream gradient of this creek, from the 3150ft contour line to the 3050ft line. *Round the numerator of your fraction to the nearest tenth.*

Oh well, I'm not strong enough to row this bad boy up the mountain. Especially not with Bark in the back! He's one big dog.
Next, we're going to the peaks of Idaho. I drive back to the city and fly with Bark in my airplane to Coeur d' Alene, Idaho. First, we're going to a place called "Chimney Peak"

Chimney Peak Quadrangle, Idaho
15. What are the names of the National Forests that we are exploring?

16. Are there any roads for the other Jeep I rented?

17. It seems that these mountains are *reeeeeeeeaaaaaaally* high. What is the value of the *highest* contour of Chimney Peak?

18. What is the slope between the x7243 mark and the northern "point" of the highest contour of Chimney Peak?

19. We're walking along Pack Trail (Sector 6). What kind of boundary are we walking next to?

20. An hour of walking later, we're at Louse Point. What is the UTM of this point? *Round your coordinates to the nearest multiple of 10.*

As Bark and I reach Ghost Mountain, we notice a few different things on our maps.

21. What are the latitudinal and longitudinal coordinates of the graticule tick mark that we pass?

22. What boundary does the boundary we were walking next to merge with?

23. Oops! I forgot to set my compass. What is the *positive difference* between the magnetic declination here and the declination at Vanstel?

After hours of walking back, we finally reach our Jeep again. We drive up to another peak, and we're really close to Canada. It's getting really cold and dark up here, too! I need a lot of information from here, so I have to have your help so we can go quickly.

Pyramid Peak Quadrangle, Idaho

24. What is the name of the Game Preserve located South of the forest we are exploring?

25. Find the value of the highest elevation on this map. I was told it wasn't at Pyramid Peak…

26. Find the stream gradient of Spanish Creek, all the way from the first Ball Lake to Ball Creek. *Round the numerator of your fraction to the nearest tenth.*

27. How many creeks on this map flow into Ball Creek, and in what cardinal direction?

28. Find the slope gradient from x7239 next to Big Fisher Lake to 4413, on the road next to Trout Creek. *Round the numerator of your fraction to the nearest tenth.*

29. Sorry we have to burden you with so many calculations, but Bark and I need lots of information about these mountains. Calculate the latitudinal and longitudinal coordinates of Parker Peak □7670.

30. Last thing: Draw a profile of the Section 33/34 boundary. All we know is that Ball Creek crosses it.

On my flight back to St. Louis, I was informed by Air Traffic Control that St. Louis was having a storm and that I couldn't land there. Bark and I decide to land in Kansas City and then drive all the way back. I'll get my airplane at a later time, because the day is already gone.

Missouri Highway Map, Kansas City Inset
31. Do the runways of Charles B. Wheeler Downtown Airport mainly run N/S or E/W? This is NOT Kansas City's main airport, which is in the Northwest corner.

Missouri Highway Map, Main Map
32. If I get on I-70 from Exit 2C from the airport, how many *minutes* will it take me to get to I-64/US-40/US-61 if I drive at an average of 78 mph?

That amount of minutes later...
Thank goodness I'm done with that expedition! Bark has been sleeping the whole way here. As I drive the remainder of the journey on ol' highway 40, I think of all the sights I've seen and how happy the people I'm delivering this information to will be.