Interview questions they might ask based on feedback from previous candidates who interviewed for the same role (for the Math questions, they are more concerned about your thinking process/how you arrive to your answers rather than you actual answers):

- What do you know about self-driving cars? What do you know about Waymo?
- What is the biggest issue or challenge that Waymo or other self-driving car company is facing right now?
- How do you deal with ambiguity?
- The interviewer will ask about details your background, give two open-ended questions regarding city planning, ask how you work in a team environment, and also ask about a challenge that you have faced in the past and how you overcame it.
- There will mostly be analytical and scenario-based questions.
- If a car is traveling 15 mps (meters per second) and needs to stop within 50m how much brake force is required?
- L-car(left lane) is traveling 25 m/s. R-car(right lane) is traveling 15 m/s. L-car is 300 meter behind the R-car. After 30 seconds can L-car pass the R-car? Yes/No
- What is QA? What are the QA processes that a QA Analyst follows?
- They may also have a question about sensors, symbols, sounds, and walkways for pedestrians as well as show you two intersections and ask what the differences are.
- Math question: On a 40 miles * 10 mile rectangle, A move left 5 miles per hour, B move right 7 miles per hour, they all start at center of the top side of the rectangle, where their distance to the upper left corner would be 20 miles. They have a phone on their hands, which would only work in range of 30 miles. How long would they no longer hear from each other? After 6 hours, could they hear each other? Hint: they might be able to cut corners.
- They might ask you to list various traffic scenarios that a self-driving car might have problems with.
- They might ask you to design an intersection with classes and subclasses to include all the possibilities that can be encountered at an intersection.
- "You're driving down a residential road and a child decides to run out into the road. What sort of factors need to be accounted for in this situation?"
- "You're at a 4-way intersection with stops signs with 1 lane traffic in all directions. How would you set up a scenario and what needs to be accounted for to navigate this intersection safely?
- "2 cars are driving in the same directions. One is traveling 15 m/s and the other 25 m/s and is 300m behind the slower car. After 30 seconds, will the faster car have passed the slower car?
- "If 1629 digits were used for paging a book, how many pages re in this book?"
- Set up a scenario where a car is driving and there is a child on the sidewalk. The child just stays on the sidewalk, not on the road. What should you do? Or what do you need to do?
- Trick question about an algorithm: Imagine that I give you a bag with millions of random numbers inside. How can you find the number that I ask of you?
- They may also ask about the physics behind acceleration and deceleration as well as traffic rules.
- There may be some questions where they ask you to describe your background as well as your thought process/how you solve problems.
- "What could be the reason an autonomous car would stop on the street?"
- "If you have 36 horses and you can run 6 at a time, how do you figure out which one is the fastest without the help of a stop watch?"

- "A snail climbing up a 30 ft wall. Every 1 hour he climbs 3 ft but he falls 2ft at the top of the hour. How many hours will he need to climb the complete wall?"
- How do you adapt to new software? What types of software do you have experience with?
- Also some more general questions: tell me about yourself, what do you think this position is about (they will likely emphasize that this position does not involve any coding), describe why you think you would be a good fit for this position, elaborate on a previous project/previous experience that is listed on your resume, tell me about a time you had a challenge (academic/professional) and how you overcame it, what do you look for in a team
- "If a ball rolled onto a street and a child were to run after it, how do you think a regular driver in a regular car would respond? What about if there was no visibility?"
- "What scenarios would you design to test a self-driving car's reaction to a child running after a ball that rolled onto the street?"
- "If the car is going at 20 m/s and needs to stop at a distance of 40 m, what acceleration is needed? (They provide the physics equation needed for this problem: $v_f^2 = v_i^2 + 2ad$)"
- What are the benefits of a person driving vs. a self-driving car. What would a person do differently in specific scenarios?
- "You have a closed 4 way 2 lane intersection. What scenarios would you use to test a self-driving vehicle?"
- Why would you want to create a simulation instead of testing in real life?
- Pretend that you are the DMV and you have to create a class and subclass of various traffic scenarios. How would you do it?
- "A car first has zero velocity and then accelerates for 3m/s for 6s, then goes back -6m/s. What does the negative -6m/s mean?"
- There may be a ranking question about ranking things by how quickly they could stop between people, a bike, a car, a motorcycle and a truck
- May show pictures and ask questions about how a person driving the car would respond and how the self-driving car would respond in the same situation on the road
- Draw a graph with time on X axis and acceleration (speed) on Y axis. At different times, speed of the car changes so when would the passengers feel uncomfortable based on looking at the graph