Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In the space below draw an engineer doing engineering work.

What is your engineer doing?

1. Measure the line segment below to the nearest centimeter. \_\_\_\_\_\_\_\_\_\_\_\_cm

2. Experiment: Both Car A and B are exactly the same shape and size, are built with the same materials, but extra weight was put into Car A. Car A has a mass of 20 units. Car B has a mass of 10 units. Both cars are let go at the top of the same ramp. Which one goes further?

3. In at least 2 sentences, explain your answer to number 2.

4. What is a constant in the experiment from #2?

A. Car A

B. Car B

C. Shape of the cars

D. The mass of the cars

5. Why is it important to have constants in an experiment?

6. You collected data on the distance Car A and Car B traveled. You measured the distance of each car in centimeters 5 times. What is one way in which you could organize the data you collected to help others understand your findings?

7. Look at the graph below. Which tire type allows the car to travel the farthest distance?

8. The graph above does not include information about the experiment that is needed to understand if the data is reliable. List two questions you would ask the scientist who made this chart to help you understand if the experiment was a good one.

9. When making a strong argument related to science or engineering, what are some important things to remember?