

Consider the image below to answer the questions that follow



The photo above was taken with the camera shutter open for $1/20$ sec. The distance between white stripes is 3 meters. The length of the blur is the distance the car traveled while the shutter was open.

1. How fast is the car traveling?

2. Given that the car had traveled 35.7 km up to the moment this photo was taken, sketch a graph of the car's distance traveled with respect to the time it traveled during the time this photo was formed ($1/20$ sec). How would the graph change had the car traveled 146.2 km up to the moment this photo was taken?