

Physics 10154 - Exam #1B

Answer the following two questions. Be sure to clearly indicate your answer with a circle or box. Show all work. If I cannot see how you arrived at an answer, I will deduct points!

1. A driver takes a trip and moves 67 km/hr while driving. Along the way, he takes a 12 minute rest stop. When his trip is finished, the average speed is 58 km/hr. How far (in km) does the driver travel during the entire trip?

2. A child fires a model rocket from rest on the ground. It accelerates upwards at 18 m/s^2 for until it reaches a height of 450 feet above the ground. From there, it is in free fall, and it continues upward to a maximum height before falling straight back down to the ground.

From the point it reaches its maximum height until it hits the ground, how many seconds elapse?