32 A car entering a highway stops on the entrance ramp. The car then accelerates uniformly along a straight line, reaching 28 m/s in 5.6 s.

a. What is the average acceleration of the car during the 5.6 s? Show your calculations and include units in your answer.

b. How far does the car travel in the 5.6 s? Show your calculations and include units in your answer.

c. Traveling in a straight line, the car slows down uniformly from 28 m/s, taking 3.5 s to come to a stop. What is the car's average acceleration during the 3.5 s? Show your calculations and include units in your answer.

d. How far does the car travel during the 3.5 s it takes to stop? Show your calculations and include units in your answer.