**Problem statement** a) A car is traveling at 50 mi/h when the brakes are fully applied, producing a constant deceleration of 40 ft/s<sup>2</sup>. What is the distance covered before the car comes to a stop?

b) A car braked with a constant deceleration of  $40 \text{ ft/s}^2$  and produced skid marks measuring 160 feet before coming to a stop. How fast was the car traveling when the brakes were first applied?