

- 9 When a car is travelling along a straight road at a constant speed of  $72 \text{ km h}^{-1}$ , the power delivered by its engine is 12 kW. The efficiency of the engine is 30% and each kilogram of petrol produces 40 MJ of energy.

What is the total resistive force on the car and the mass of petrol required for a one-hour drive?

	total resistive force	mass of petrol
<b>A</b>	170 N	0.32 kg
<b>B</b>	600 N	0.32 kg
<b>C</b>	170 N	3.6 kg
<b>D</b>	600 N	3.6 kg