

- 1 A car is travelling at a speed of  $20 \text{ m s}^{-1}$ . The table contains values for the kinetic energy and the momentum of the car.

Which values are reasonable estimates?

	kinetic energy / J	momentum / $\text{kg m s}^{-1}$
<b>A</b>	$3 \times 10^5$	$3 \times 10^4$
<b>B</b>	$3 \times 10^5$	$5 \times 10^6$
<b>C</b>	$2 \times 10^7$	$3 \times 10^4$
<b>D</b>	$2 \times 10^7$	$5 \times 10^6$

- 2 What is the unit of resistance when expressed in SI base units?

- A**  $\text{kg m}^2 \text{s}^{-2} \text{A}^{-1}$
- B**  $\text{kg m}^2 \text{s}^{-3} \text{A}^{-2}$
- C**  $\text{kg m s}^{-2} \text{A}^{-1}$
- D**  $\text{kg m s}^{-3} \text{A}^{-1}$

- 3 Which list contains both scalar and vector quantities?

- A** acceleration, momentum, velocity, weight
- B** area, current, force, work
- C** distance, kinetic energy, power, pressure
- D** mass, temperature, time, speed