

- 6 The table shows four different collisions between two blocks, each of mass 0.50 kg.

Which collision is perfectly elastic?

	before collision		after collision	
A	$4.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg	0.0 ms^{-1} 0.50 kg		$2.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg 0.50 kg
B	$2.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg	$2.0 \text{ ms}^{-1} \leftarrow$ 0.50 kg		0.0 ms^{-1} 0.50 kg 0.50 kg
C	$2.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg	$1.0 \text{ ms}^{-1} \leftarrow$ 0.50 kg	$\leftarrow 2.0 \text{ ms}^{-1}$ 0.50 kg	$3.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg
D	$4.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg	$1.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg	$1.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg	$4.0 \text{ ms}^{-1} \rightarrow$ 0.50 kg

- 7 A car of mass 1000 kg is moving at 10 m s⁻¹. It collides with a stationary 500 kg truck.