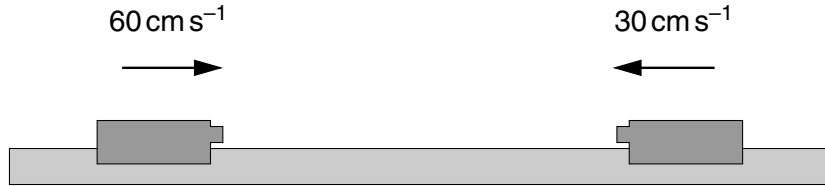12 Two equal masses travel towards each other on a frictionless air track at speeds of 60 cm s⁻¹ and 30 cm s⁻¹. They stick together on impact.

$$60\,\text{cm s}^{-1} \qquad\qquad 30\,\text{cm s}^{-1}$$

What is the speed of the masses after impact?

A   15 cm s⁻¹   **B**   20 cm s⁻¹   **C**   30 cm s⁻¹   **D**   45 cm s⁻¹