

- 20** An initially stationary firework explodes and splits into two fragments that move horizontally in opposite directions.

The total kinetic energy transferred to the fragments by the explosion is E .

One fragment has mass m and the other one has mass $2m$.

What is the speed of the fragment of mass m immediately after the explosion?

A $\sqrt{\frac{E}{m}}$

B $\sqrt{\frac{2E}{m}}$

C $\sqrt{\frac{2E}{3m}}$

D $\sqrt{\frac{4E}{3m}}$