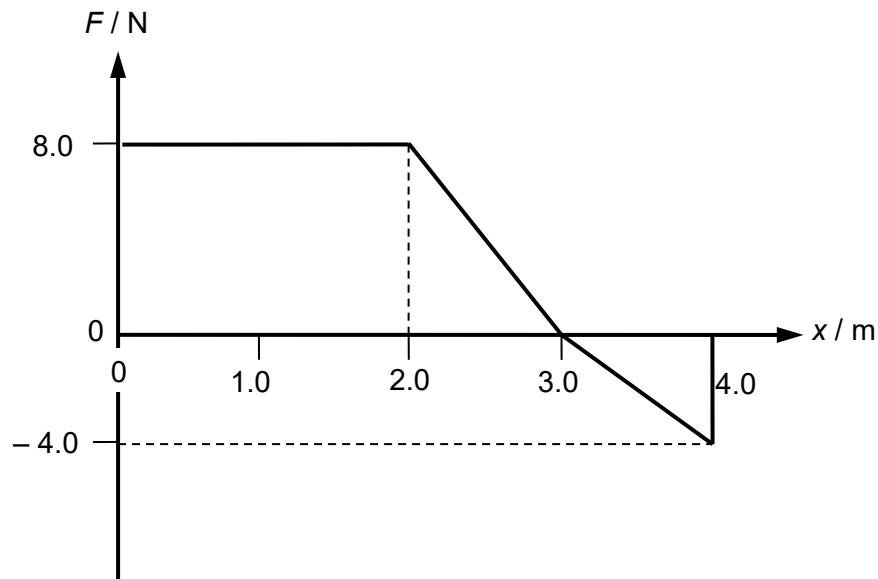


- 6 A body of mass  $2.0\text{ kg}$  is acted on by a net force  $F$  which varies with displacement  $x$  as shown.



The velocity of the body before the net force is applied is  $2.5\text{ m s}^{-1}$ .

What is the final velocity of the body at  $x = 4.0\text{ m}$ ?

- A  $4.2\text{ m s}^{-1}$
- B  $4.9\text{ m s}^{-1}$
- C  $5.3\text{ m s}^{-1}$
- D  $12\text{ m s}^{-1}$

- 7 A car of mass  $m$  has an instantaneous forward acceleration  $a$  when it is moving with