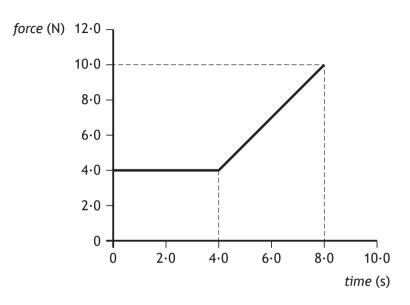
**6.** The graph shows the force that acts on an object over a time interval of 8.0 seconds.



The momentum gained by the object during the 8.0 seconds is

- A  $12 \text{ kg m s}^{-1}$
- B  $32 \text{ kg m s}^{-1}$
- C  $44 \text{ kg m s}^{-1}$
- D  $52 \text{ kg m s}^{-1}$
- E  $80 \text{ kg m s}^{-1}$ .