3   A stone is thrown horizontally from the top of a cliff with a speed of $40\,\text{m}\,\text{s}^{-1}$.

If air resistance is negligible, what will be the speed of the stone when it hits the surface of the sea 3.0 s later?

**A**   $30\,\text{m}\,\text{s}^{-1}$      **B**   $40\,\text{m}\,\text{s}^{-1}$      **C**   $50\,\text{m}\,\text{s}^{-1}$      **D**   $70\,\text{m}\,\text{s}^{-1}$