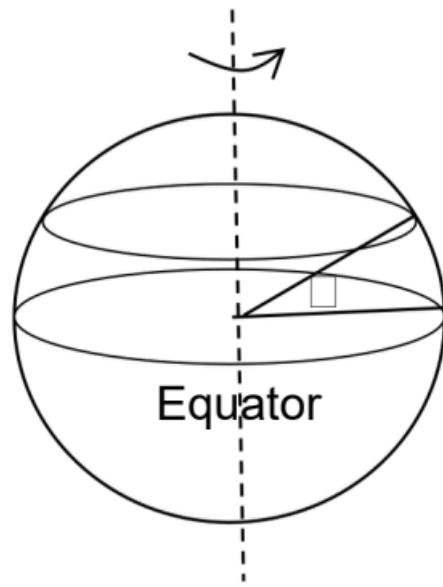


12 The Earth has a radius of 6.38 10^6 m, and rotates on its axis once every 24 hours.



What is the linear speed of a person standing at a latitude \square of 30° on the surface of the Earth?

A 230 m s^{-1}

B 400 m s^{-1}

C 540 m s^{-1}

D $8.4 \times 10^5 \text{ m s}^{-1}$