"Showing your work"

10/20/16

What is the kinetic energy of a jogger with a mass of 65kg traveling at a speed of 2.5 m/sec?

#1 - Make a list of knowns and unknowns.

KE = ?
m = 65 kg
V = 2.5 m/sec

#2 - Write the equation

$$KE = \frac{1}{2} \cdot m \cdot v^2$$

#3 - Substitute given values

$$KE = \frac{1}{2} (65\,kg)(2.5\,m/sec)^2$$

#4 - Solve. Don't forget units.

$$KE = 203.1\,J$$