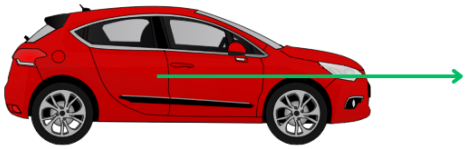
# Momentum and energy



**Question**
A car is traveling and has a momentum of $\mathbf{15,000\ kgm/s}$. if the kinetic energy of the car is$\boldsymbol{T = 112.5KJ}$ find the mass of the car

*Using known expressions*:
P=mv
$T = \frac{1}{2}mv^2$

*Given*:
$T = 112.5KJ$
15,000 kgm/s

*Solution*:
$T = \frac{p^2}{2m}$
$112500 = \frac{225*10^6}{2m}$
$112500 = \frac{112.5*10^6}{m}$
$m = 1000kg$