Answer on Question #58792-Physics-Classical Mechanics

A $m = 5\ kg$ shot putt is thrown with an average force of $F = 500\ N$ applied for a period of $\Delta t = 0.3\ s$. What is the magnitude of the impulse?

Solution

The magnitude of the impulse is given by the formula:

$$p = F\Delta t = 500\ N \cdot 0.3\ s = 150\ Ns.$$

Answer: 150 Ns.