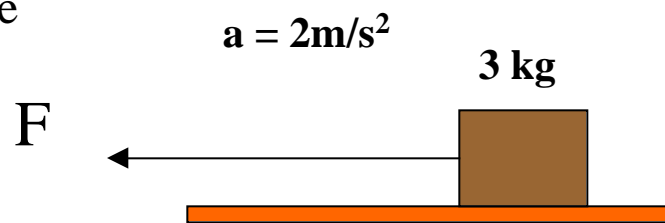


Q1 - Answer = c

Q2 - Problem A - Last name A-K

A mass of 3 kg is accelerated at 2 m/s^2 by a force F for a time of 5 seconds. How much work is done by this force in that time?



a. 6 J

b. 15 J

c. 30 J

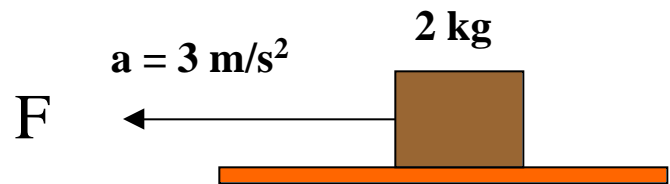
d. 60 J

e. 150 J $F = m a = 3 \times 2 = 6\text{N}$; $L = \frac{1}{2} a t^2 = \frac{1}{2} \times 2 \times 5^2 = 25 \text{ m}$; $W = FL = 6 \text{ N} \times 25 \text{ m} = 150 \text{ J}$

Q1 - Answer = c

Q2 - Problem B - Last Name L-Z

A mass of 2 kg is accelerated at 3 m/s^2 by a force F for a time of 4 seconds. How much work is done by the force in that time?



- a. 6 J
- b. 24 J
- c. 96 J
- d. **144 J** $F = m a = 2 \times 3 = 6\text{N}$; $L = \frac{1}{2} a t^2 = \frac{1}{2} \times 3 \times 4^2 = 24 \text{ m}$; $W = FL = 6 \text{ N} \times 24 \text{ m} = 144 \text{ J}$
- e. 256 J