Physics 231 - 24-Sep-99

- Announcements
- Work
- Kinetic Energy
- Examples
- quiz

Announcements

- First Midterm - Monday, October 4, 8:00 - 9:00 p.m. in E100 Vet. Med. Center
  - Bring your Student ID
  - Bring a calculator
  - No books or notebooks allowed but, one 8 1/2" x 11" "help-sheet" is permitted

Work

$$\Delta W = \mathbf{F} \cdot \Delta \mathbf{L} = F\, \Delta L \cos \Theta$$

Work Examples

- Work overcoming gravity
- Work against friction
- Varying Force and Work

Kinetic Energy

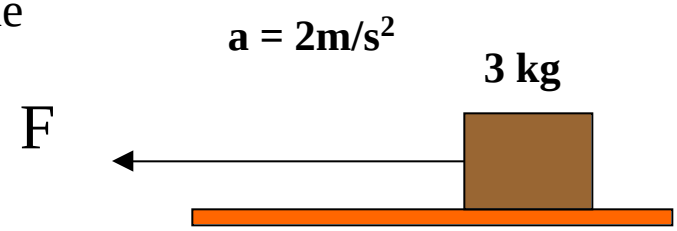
$KE = 1/2\ mv^2$

Work-Energy Theorem

Examples

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

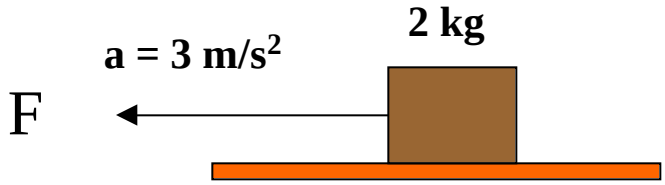
c. 30 J

d. 60 J

e. 150 J

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

e. 256 J