


Q1 - Answer = c

Q2 - Problem A - Last name A-K



A lead ball with mass 2 kg is dropped from a height of 3 m. What is its kinetic energy just before it hits the ground? ($g = 9.8 \text{ m/s}^2$)

A. 6 J

B. 19.6 J

C. 29.4 J

D. 59 J; $KE = PE = mgh = 2 \times 9.8 \times 3 = 59 \text{ J}$

E. 118 J

Q1 - Answer = c

Q2 - Problem B - Last Name L-Z

■ A ball of mass 0.25 kg is thrown straight up with initial velocity 2.0 m/s. What maximum change in potential energy does it achieve?

A. 0.5 J; $PE = KE_i = \frac{1}{2} mv^2 = \frac{1}{2} 0.25 (2)^2 = 0.5 \text{ J}$

B. 1.0 J

C. 4.9 J

D. 9.8 J

E. 19.6 J