

AP Chem Ch. 5 Study Sheet 1**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- Calculate the kinetic energy in J of an electron moving at 6.00×10^6 m/s. The mass of an electron is 9.11×10^{-28} g.
 - 4.98×10^{-48}
 - 3.28×10^{-14}
 - 1.64×10^{-17}
 - 2.49×10^{-48}
 - 6.56×10^{-14}
- Calculate the kinetic energy in joules of an automobile weighing 2135 lb and traveling at 55 mph. (1 miles = 1.6093 km, 1 lb = 453.59 g)
 - 1.2×10^4
 - 2.9×10^5
 - 5.9×10^5
 - 3.2×10^6
 - 3.2×10^{-6}
- The kinetic energy of a 7.3 kg steel ball traveling at 18.0 m/s is _____ J.
 - 1.2×10^3
 - 66
 - 2.4×10^3
 - 1.3×10^2
 - 7.3
- Calculate the kinetic energy in joules of a 150 lb jogger (68.1 kg) traveling at 12.0 mile/hr (5.36 m/s).
 - 1.96×10^3
 - 365
 - 978
 - 183
 - 68.1
- Calculate the kinetic energy in joules of an 80.0 g bullet traveling at 300.0 m/s.
 - 3.60×10^6
 - 1.20×10^4
 - 3.60×10^3
 - 12.0
 - 80.0
- The kinetic energy of a 23.2-g object moving at a speed of 81.9 m/s is _____ J.
 - 145
 - 0.95
 - 77.8
 - 77,800
 - 1900
- The kinetic energy of a 23.2-g object moving at a speed of 81.9 km/hr is _____ J.
 - 1900
 - 77.8
 - 145
 - 1.43×10^{-3}
 - 6.00
- The kinetic energy of a 23.2-g object moving at a speed of 81.9 km/hr is _____ kcal.
 - 1.43×10^{-3}
 - 6.00
 - 1900
 - 454
 - 0.0251
- A 100-watt electric incandescent light bulb consumes _____ J of energy in 24 hours. [1 Watt (W) = 1 J/sec]
 - 2.40×10^3
 - 8.64×10^3
 - 4.17
 - 2.10×10^3
 - 8.64×10^6
- The ΔE of a system that releases 12.4 J of heat and does 4.2 J of work on the surroundings is _____ J.
 - 16.6
 - 12.4
 - 4.2
 - 16.6
 - 8.2