

Name: _____ Date: _____

1. In an electron microscope, electrons are accelerated to great velocities. Calculate the wavelength of an electron traveling with a velocity of 7.0×10^3 kilometers per second. The mass of an electron is 9.1×10^{-28} g.
 - A) 1.0×10^{-13} m
 - B) 1.0×10^{-7} m
 - C) 1.0 m
 - D) 1.0×10^{-10} m
2. Which one of the following pairs are *isoelectronic*?
 - A) Mn^{2+} and Ar
 - B) Zn^{2+} and Cu^{2+}
 - C) Na^+ and K^+
 - D) Cl^- and S
 - E) K^+ and Cl^-
3. Which of the elements listed below has the highest first ionization energy?
 - A) C
 - B) Si
 - C) Ge
 - D) Sn
 - E) Pb
4. Which of the following elements has the greatest electron affinity (largest positive value)?
 - A) K
 - B) Br
 - C) As
 - D) Ar
 - E) I

Answer Key

1. D
2. E
3. A
4. B