Practice Test I

1. Calculate the wavelength of light emitted from a hydrogen atom when an electron undergoes an n = 8 to n = 4 transmission.
A) 194̲0 nm
B) 262̲0 nm
C) 1.245×10^{3} nm
D) 3.178×10^{3} nm
E) 714.8 nm

Answer: A

2. Calculate the energy of the violet light emitted by a hydrogen atom with a wavelength of 41̲0 nm.
A) 4.84×10^{-19} J
B) 2.06×10^{-19} J
C) 1.23×10^{-19} J
D) 8.13×10^{-19} J