7. This may seem trivial, if
   you had an easy time
   converting btwn units,
   but most people have
   a hard time with it.

Convert btwn units by
   identifying combinations of
   the "natural units" to
   produce the desired
   units.

For unit times,

$$\tau = \frac{\hbar}{eV} \quad (\text{in } s) = 6.58 \times 10^{-16} \, s$$

since $\hbar = 1$ (with true units of $6.58 \times 10^{-16} \, eV \cdot s$)

This is the timescale associated with a unit step in t.

For unit lengths,

$$\ell^2 = \frac{\hbar^2}{m_e \, eV} \qquad (\text{having units } m^2)$$

$$= \frac{\left(1.05 \times 10^{-34} \, kg \, m^2/s\right)^2}{9.11 \times 10^{-31} \, kg \cdot 1.6 \times 10^{-19} \, kg \, m^2/s^2}$$

$$= 7.56 \times 10^{-20} \, m^2, \quad \text{so}$$

$$\ell = 2.75 \times 10^{-10} \, m.$$