

HW.5

4-36: $A e^{i((4.74 \times 10^9)x - (1.30 \times 10^{15})t)}$

4-41: $3.6 \times 10^{-28} \text{ [m/s]}$

4.48: $2.2 \times 10^{-24} \text{ [s]}$

4.53: (b) $(3/2^{4/3}) (\hbar^{4/3} b^{1/3})/m^{2/3}$

4.63: 95 [nm]

4.66: $A(k) = (L/4\pi) [\sin((k_0-k)(1/2)L)] / [(k_0-k)(1.2)L] +$
 $(L/4\pi) [\sin((k_0+k)(1/2)L)] / [(k_0+k)(1.2)L]$