1. If a business firm has a corporate income tax rate of 35% and spends $10,000 on a tax-deductible expense, what is the "after tax" cost of this expense?

   a. $10,000 (-3)
   b. $13,500 (-2)
   c. $3,500 (-3)
   ♦ d. $6,500 (-6)
   e. $10,350 (-3)

   \[ \Rightarrow = (1 - t) \cdot c = (1 - 0.35) \cdot (10,000) = 6,500 \]

2. Assume a business firm expects in the long run to pay $20 per machine hour of capital (= K) and $10 per hour of labor (= L) employed. For which of the following conditions should the firm plan on using more capital and less labor in the long run?

   a. MC of production using K = MC of production using L (-2)
   ♦ b. MP of K = 20 and MP of L = 5 (-6)
   c. MC of production using L = 1/2 x (the MC of production using K) (-2)
   d. The point of diminishing returns for K has not been reached yet (-2)
   e. When L is fixed in the long run (-3)

   \[ \uparrow K \text{ if } MC_K < MC_L \]

   \[ \Rightarrow \quad \frac{P_K}{MP_K} < \frac{P_L}{MP_L} \]

   b) \[ \Rightarrow \downarrow \]

   \[ \frac{20}{20} < \frac{10}{5} \]