1. Perloff, fourth edition: question 3 page 174
An indiﬀerence curve shows all combinations of goods that result in the same level of utility; an isoquant shows all the combinations of inputs that result in a given level of output.

2. Perloff, fourth edition: question 5 page 174

3. Write the equation for the marginal product of capital for each of the following production functions:
   a. \( MP_K = 3 \)
   b. \( MP_K = 2K^{-0.5}L \)
   c. \( MP_K = \frac{5}{2}K^{-0.5}L \)
4. Draw a graph showing a set of isoquants that depict capital and labor to be perfect complements (not substitutable at all) in a production function that exhibits constant return to scale. Be sure to label the input and output levels on the isoquants.

The isoquants are “L” shaped, indicating perfect complementarity, and for every doubling of inputs, output also doubles. See Figure 4.

Figure 4