**Problem 1.** Last year real GDP in the imaginary nation of Oceania was 561.0 billion and the population was 2.2 million. The year before, real GDP was 500.0 billion and the population was 2.0 million. What was the growth rate of real GDP per person during the year?

- (a) 12 percent
- **(b)** 10 percent
- (c) 4 percent
- (d) 2 percent

**Problem 2.** Real Foods produced 400,000 cans of diced tomatoes in 2009 and 460,000 cans of diced tomatoes in 2010. It employed the same number of labor hours each year. Real Foods productivity

- (a) decreased 13 percent.
- (b) was unchanged.
- (c) increased 13 percent.
- (d) increased 15 percent

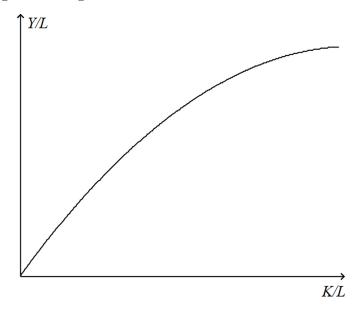
**Problem 3.** If your firm's production function has constant returns to scale, then if you double all your inputs, your firm's output will

- (a) double and productivity will rise.
- (b) double but productivity will not change.
- (c) more than double and productivity will rise.
- (d) more then double but productivity will not change.

**Problem 4.** Country A and country B are the same except country A currently has a lower level of capital. Assuming diminishing returns, if both countries increase their capital by 100 units and other factors that determine output are unchanged, then

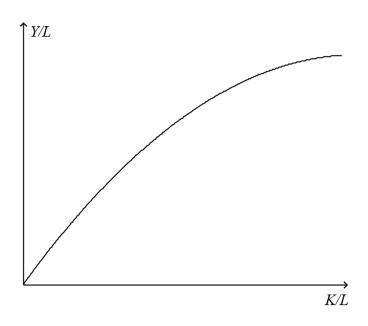
- (a) output in country A increases by more than in country B.
- (b) output in country A increases by the same amount as in country B.
- (c) output in country A increases by less than in country B.
- (d) None of the above is necessarily correct

On the horizontal axis, K/L represents capital K per worker L. On the vertical axis, Y/L represents output Y per worker L.



**Problem 5.** The curve becomes flatter as the amount of capital per worker increases because of

- (a) increasing returns to capital.
- (b) increasing returns to labor.
- (c) diminishing returns to capital.
- (d) diminishing returns to labor.



**Problem 6.** The shape of the curve is consistent with which of the following statements about the economy to which the curve applies?

- (a) In the long run, a higher saving rate leads to a higher level of productivity.
- (b) In the long run, a higher saving rate leads to a higher level of income.
- (c) In the long run, a higher saving rate leads to neither a higher growth rate of productivity nor a higher growth rate of income.
- (d) All of the above are correct.

**Problem 7.** ABC Co. sells newly issued bonds. JLG Co. sells newly issued stocks. Which company is raising funds in financial markets?

- (a) only ABC
- (b) only JLG
- (c) both ABC and JLG
- (d) neither ABC nor JLG

**Problem 8.** In a closed economy, if Y remained the same, but G rose, T rose by the same amount as G, and C fell but by less than the increase in T, what would happen to private and national saving

- (a) national saving would fall and private saving would rise
- (b) national saving would rise and private saving would fall
- (c) both national saving and private saving would fall
- (d) None of the above.

## Loanable Funds Market

- People who want to borrow money demand loanable funds. If the interest rate is low, then they'll be willing to borrow more. So the demand for loanable funds is downward sloping. Investment is the source of the demand for loanable funds.
- People who want to lend money *supply* loanable funds. If the interest rate is high, then they'll be willing to lend more. So the supply for loanable funds is upward sloping. Saving is the source of the supply of loanable funds.
- Where the supply and demand intersect gives the equilibrium interest rate and quantity of loanable funds. Thus, in equilibrium, saving equals investment.

**Problem 9.** Which of the following could explain a decrease in the equilibrium interest rate and in the equilibrium quantity of loanable funds?

- (a) The demand for loanable funds shifted rightward.
- (b) The demand for loanable funds shifted leftward.
- (c) The supply of loanable funds shifted rightward.
- (d) The supply of loanable funds shifted leftward.

**Problem 10.** Suppose the government changed the tax laws, with the result that people were encouraged to consume more and save less. Using the loanable funds model, a consequence would be

- (a) lower interest rates and lower investment.
- (b) lower interest rates and greater investment.
- (c) higher interest rates and lower investment.
- (d) higher interest rates and higher investment.