Answer on Question #38909 – Economics - Microeconomics

Derin's utility function is U = min {a1, a2} min {b1, b2}, where a1 and a2 are the number of piano lessons he consumes this year and next and b1 and b2 are the number of ice skating lessons he consumes this year and next. The price of piano lessons is $10
each and the price of ice skating lessons is $4 each. The prices won't change, but the interest rate is 7%. If Derin consumes 20 piano lessons this year, how many ice-skating lessons will he consume next year?

Solution

Utility function assigns numerical values ("utilities") to outcomes, in such a way that outcomes with higher utilities are always preferred to outcomes with lower utilities.

In our case the next year income will increase by 7 percent, so the consumption will also increase by 7 percent, as the prices are the same. That's why Derin will have by 20*1.07 piano lessons and 7 percent more ice-skating lessons next year.