

- УЧИТЫВАЯ ЕЁ ЖЕСТКОСТЬ, Я
ДУМАЮ, ЧТО ЭТА КОНСКАЯ
КОЛБАСА СДЕЛАНА ИЗ
ШАХМАТНЫХ КОНЕЙ!

**How to analyze the demand
and consumer behavior?**

2

...it is difficult to link the subjective preferences of consumers to changes in prices, income and other market variables that are objective...





The ordinal approach to the consumer balance



The combinations of goods should be arranged in the order of preference



assumption: consumers can define packages of goods and services in the order of preferences



$$TU = f(X_1, X_2, \dots, X_n)$$

Function of total utility

The quantity of goods consumed in the accounting period



$$TU = f(X, Y)$$

Function of total utility

The quantity of goods (or packages of goods) consumed in the accounting period

MANOLO BLAHNIK



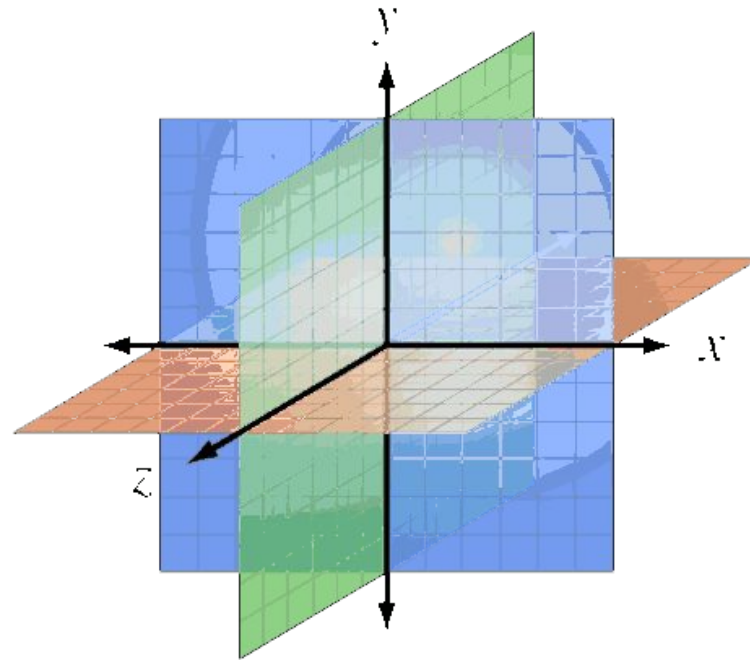
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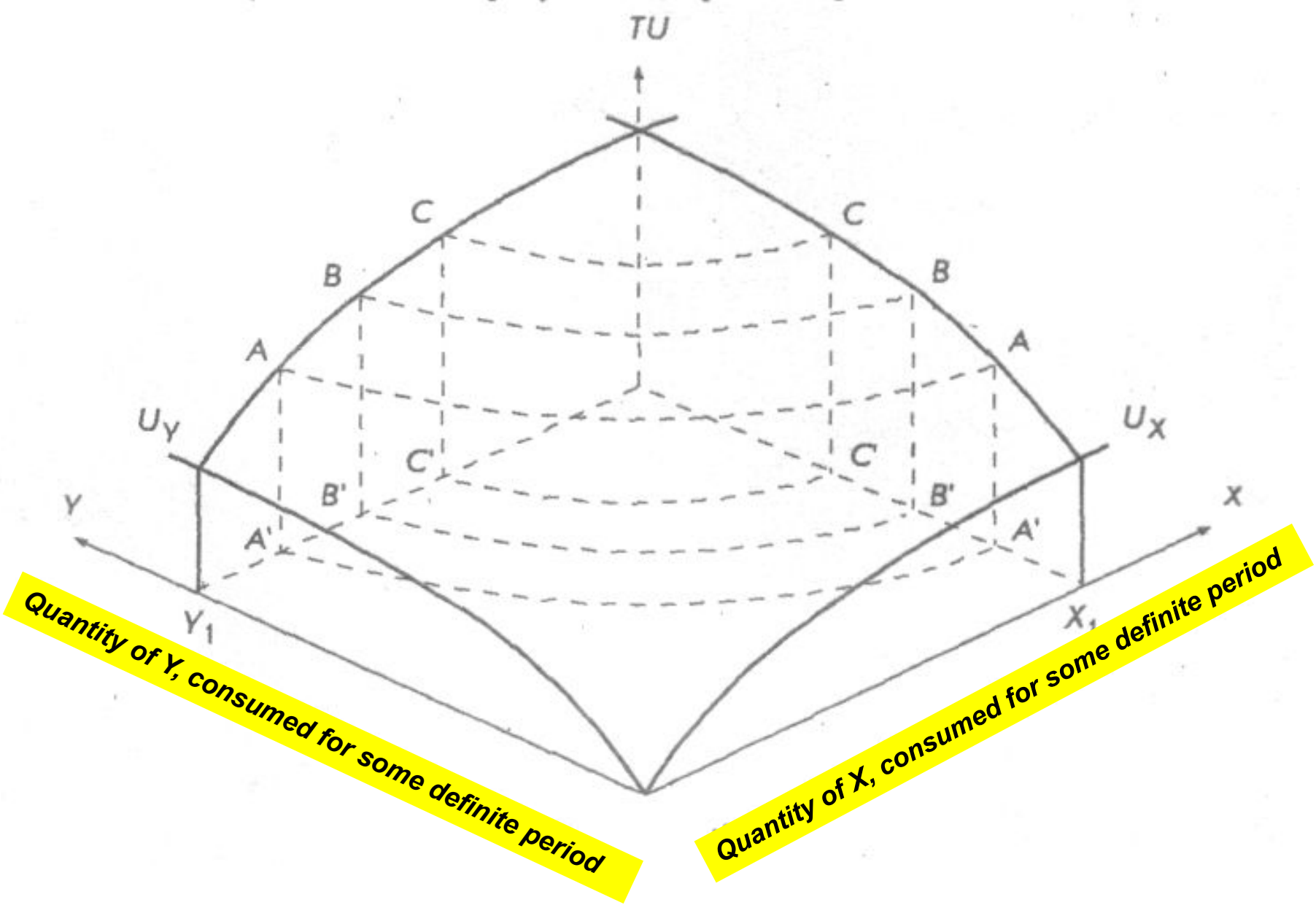


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$$TU = f(X, Y)$$

This equation describes some surface in three-dimensional space







Indifference curve is the sum of all combinations of goods X and Y , which provide the same level of total utility or satisfaction

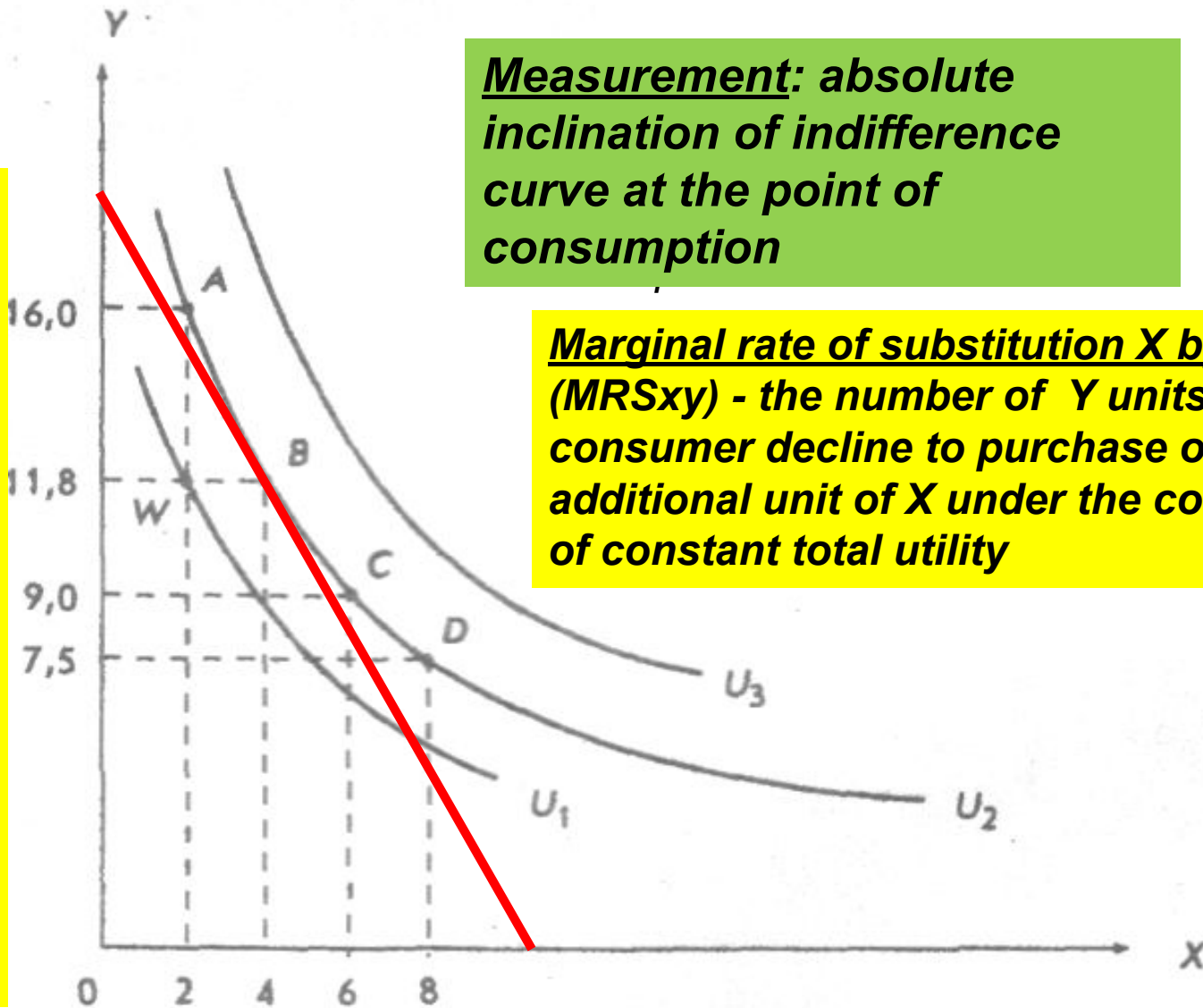
Indifference map is a chart that reflects indifference curves



Measurement: absolute inclination of indifference curve at the point of consumption

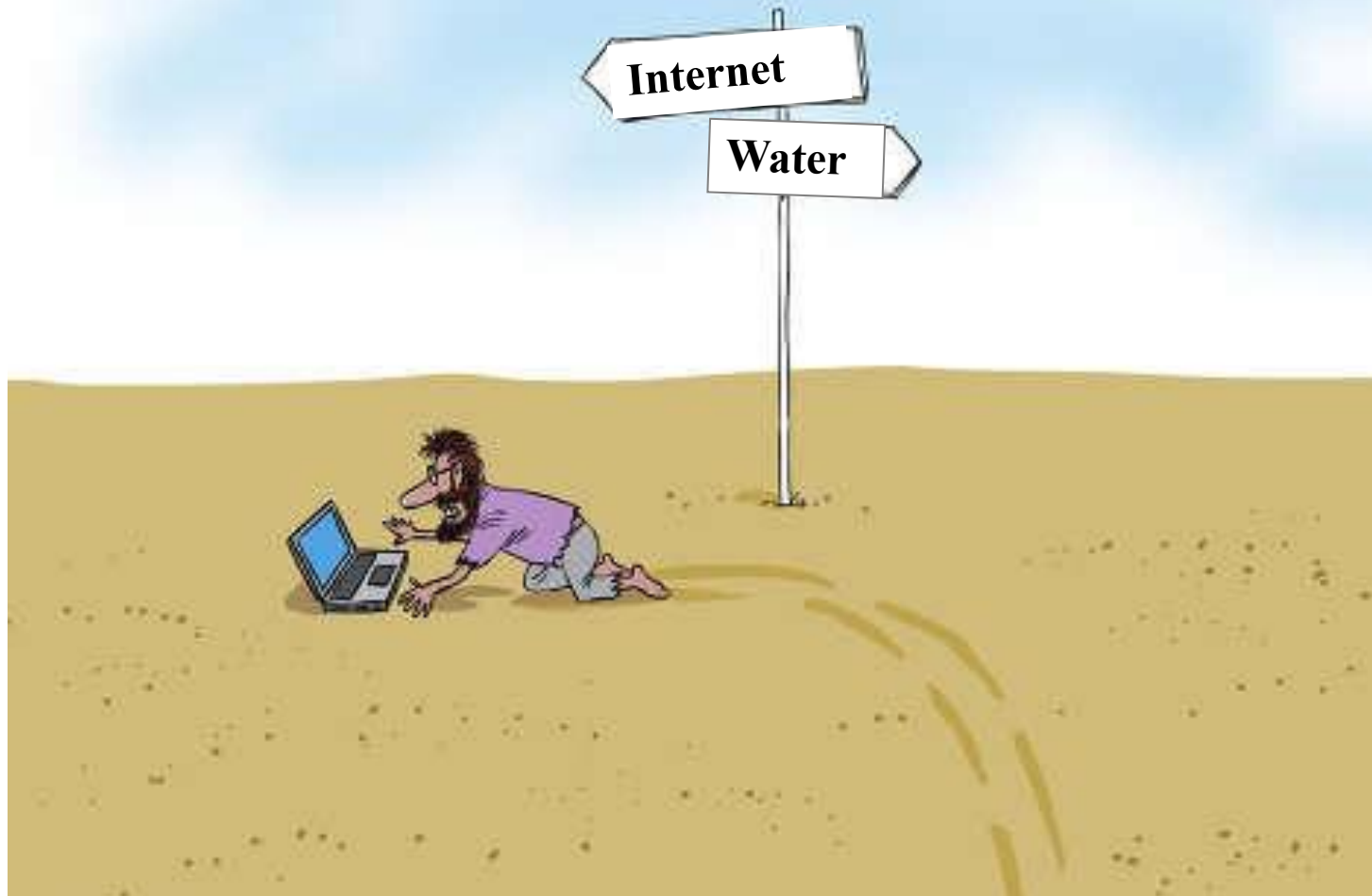
Marginal rate of substitution X by Y (MRS_{xy}) - the number of Y units consumer decline to purchase one additional unit of X under the condition of constant total utility

Quantity of Y, consumed for some definite period



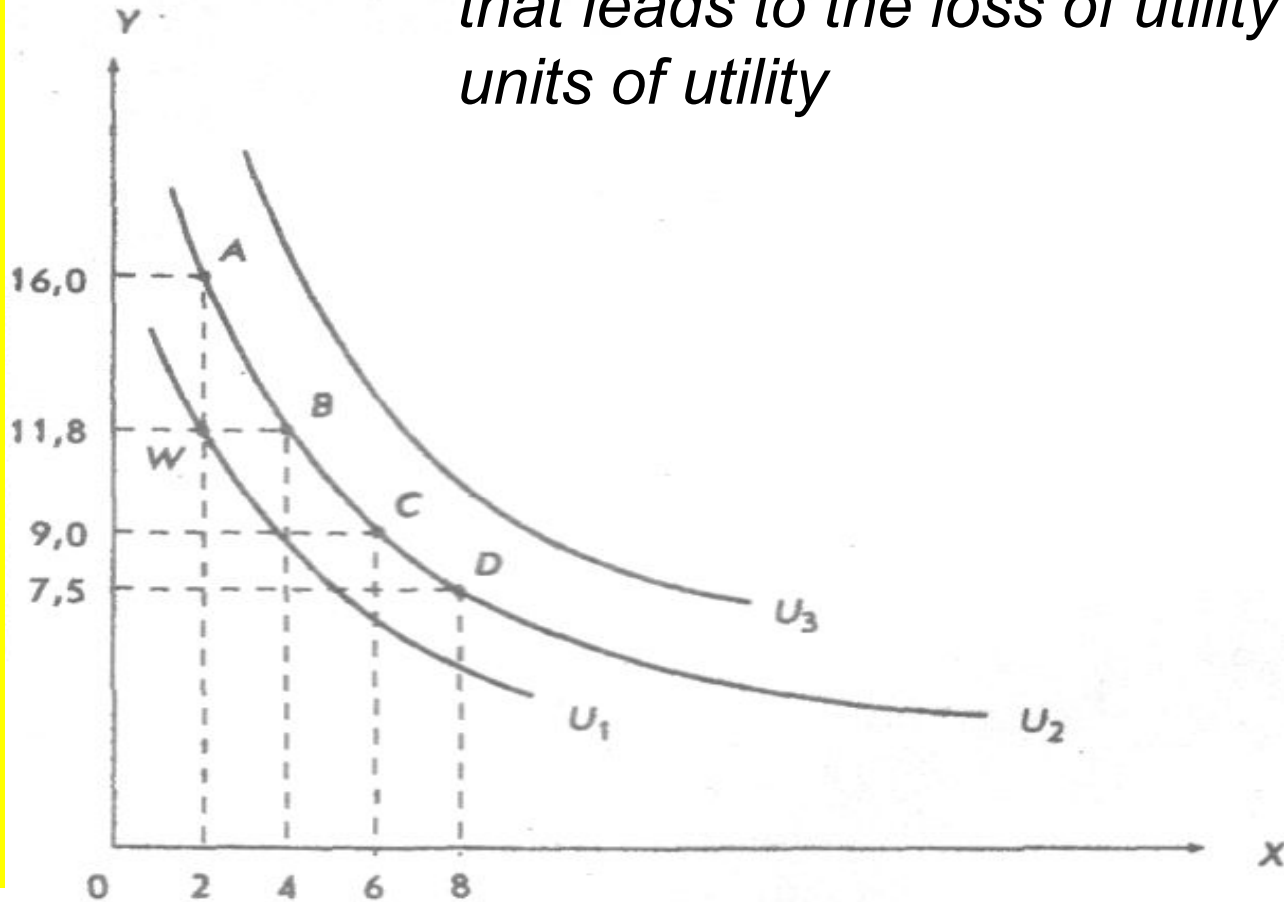
Quantity of X, consumed for some definite period

Is there a correlation between the marginal utility and marginal rates of substitution?



*] consumption of Y is reduced by ΔY
that leads to the loss of utility - $\Delta Y MU_y$
units of utility*

Quantity of Y, consumed for some definite period



Quantity of X, consumed for some definite period

But total utility remains unchanged,
 loss from $-\Delta Y$ is offset by the
 increased consumption of X

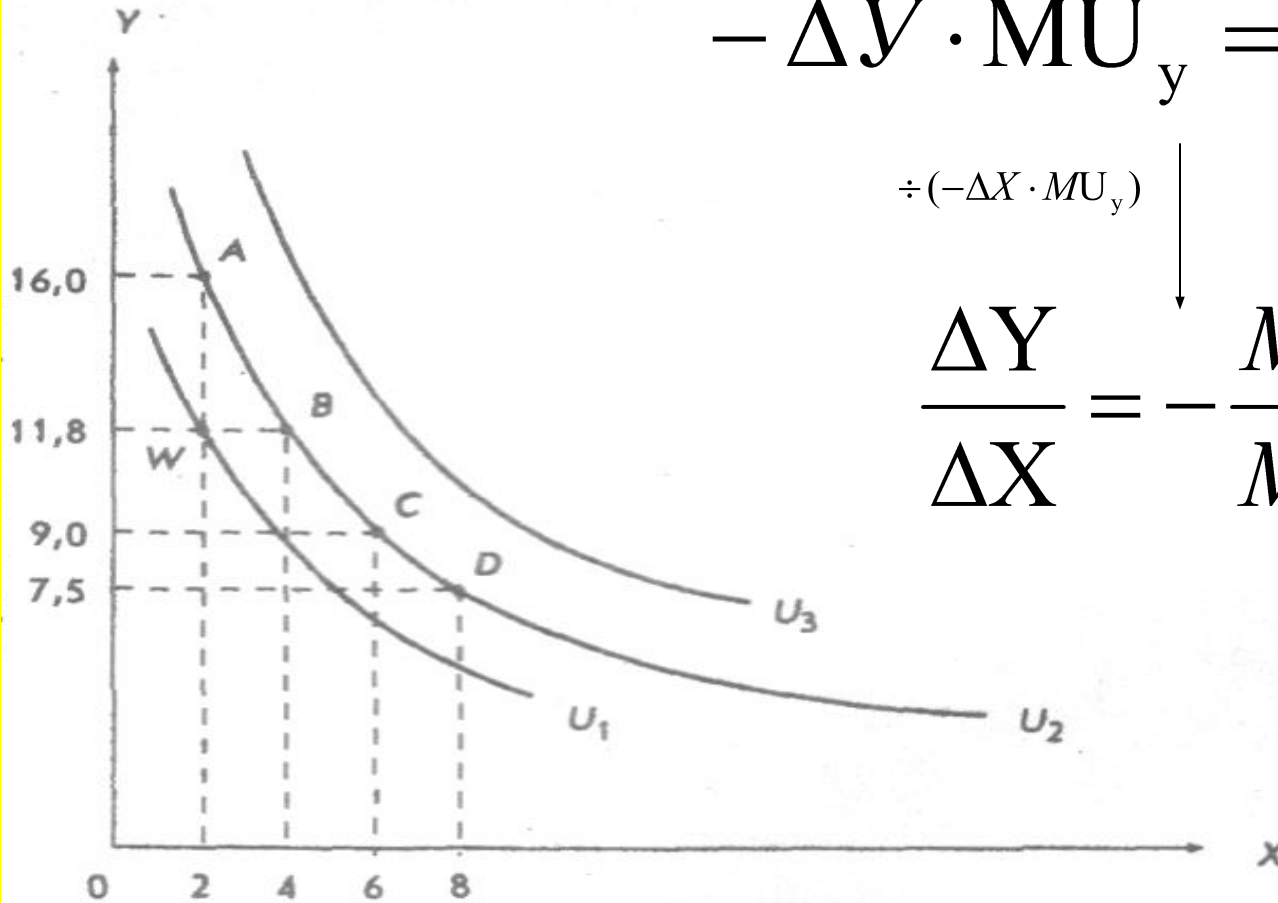
$$-\Delta Y \cdot MU_y = \Delta X \cdot MU_x$$

$$\div (-\Delta X \cdot MU_y)$$

$$\frac{\Delta Y}{\Delta X} = -\frac{MU_x}{MU_y}$$

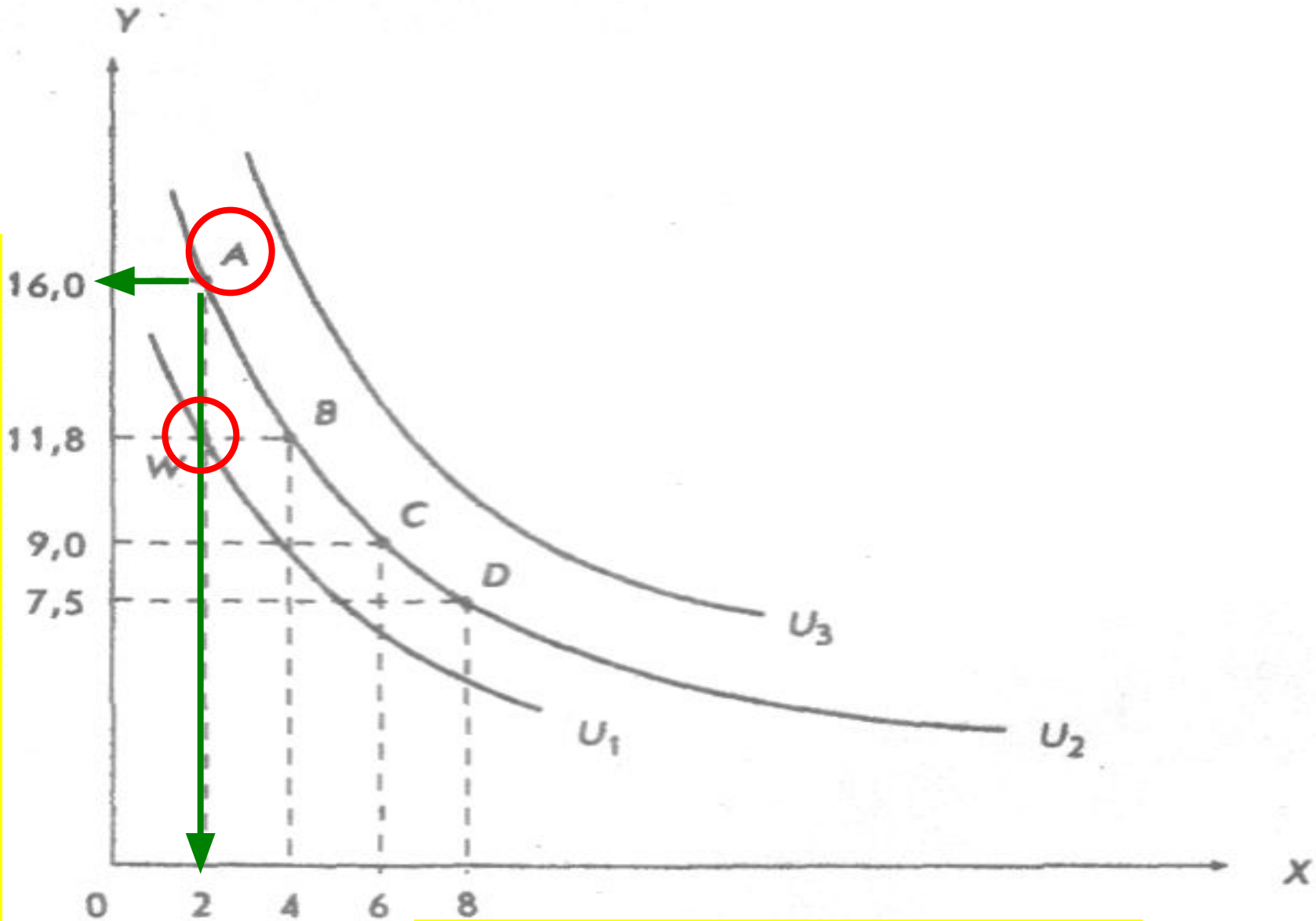
The inclination
 of the
 indifference
 curve

Quantity of Y, consumed for some definite period



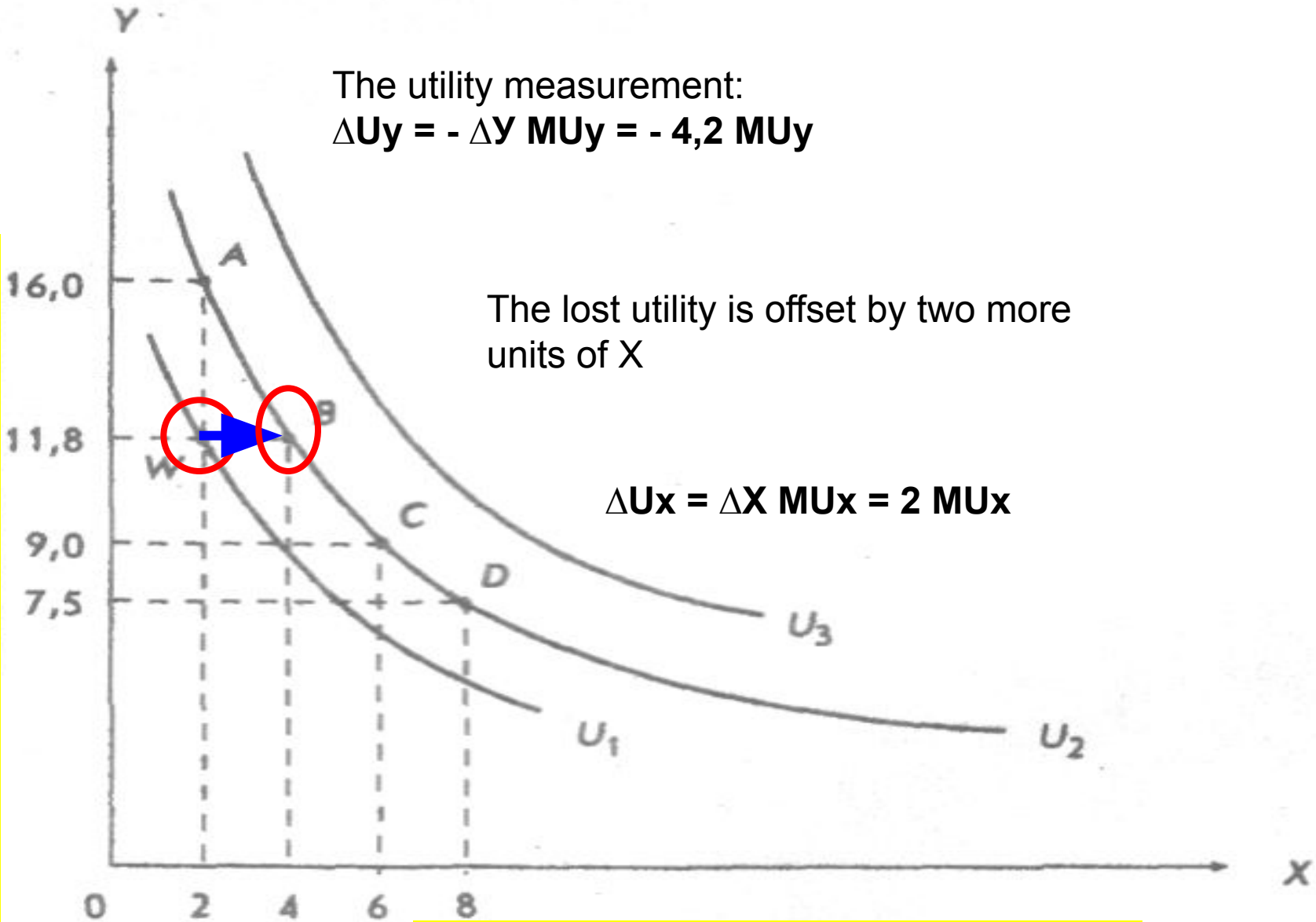
Quantity of X, consumed for some definite period

Quantity of Y, consumed for some definite period



Quantity of X, consumed for some definite period

Quantity of Y, consumed for some definite period



The utility measurement:
 $\Delta U_y = - \Delta Y MU_y = - 4,2 MU_y$

The lost utility is offset by two more units of X

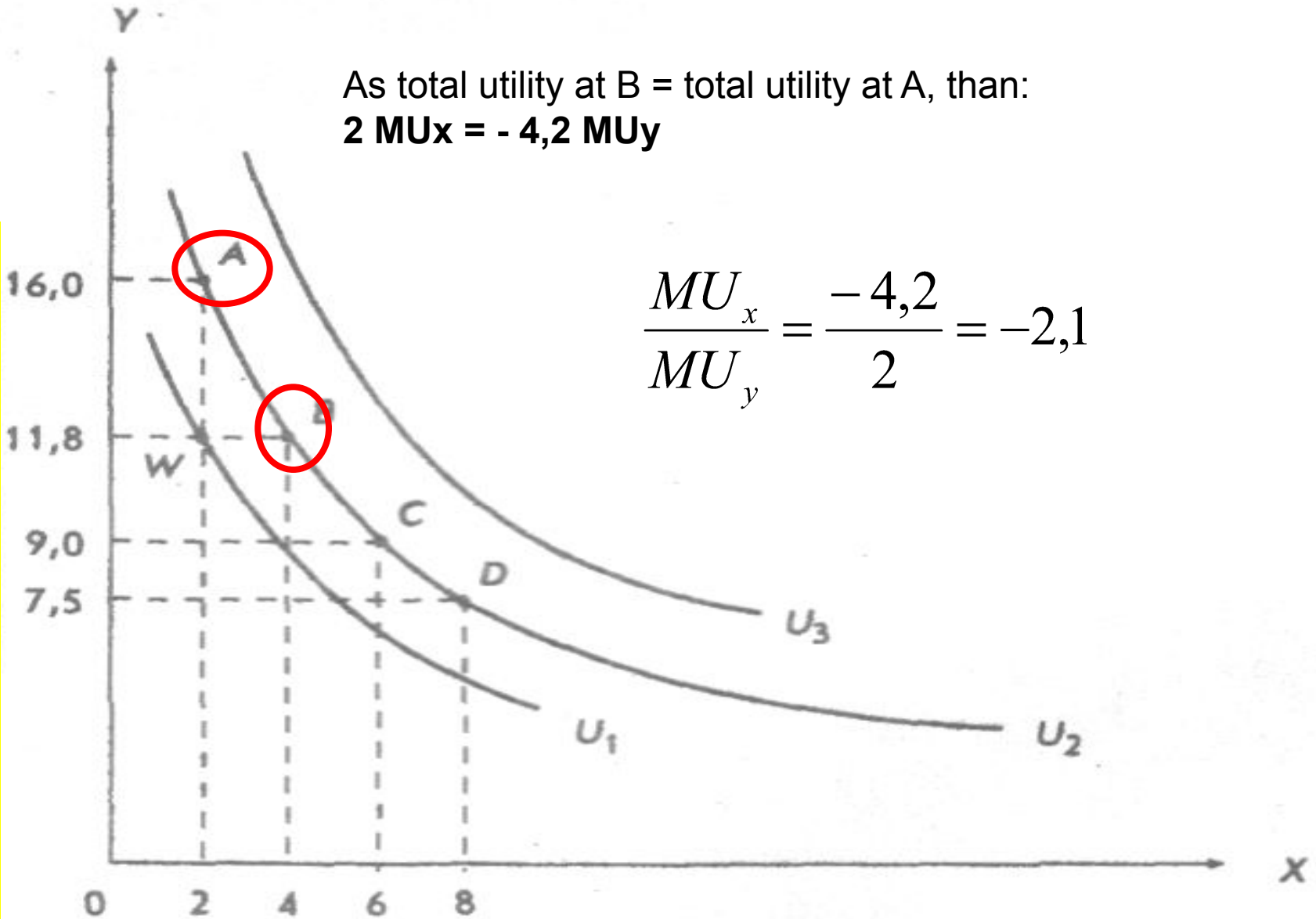
$\Delta U_x = \Delta X MU_x = 2 MU_x$

Quantity of X, consumed for some definite period

As total utility at B = total utility at A, than:
 $2 MU_x = - 4,2 MU_y$

$$\frac{MU_x}{MU_y} = \frac{-4,2}{2} = -2,1$$

Quantity of Y, consumed for some definite period

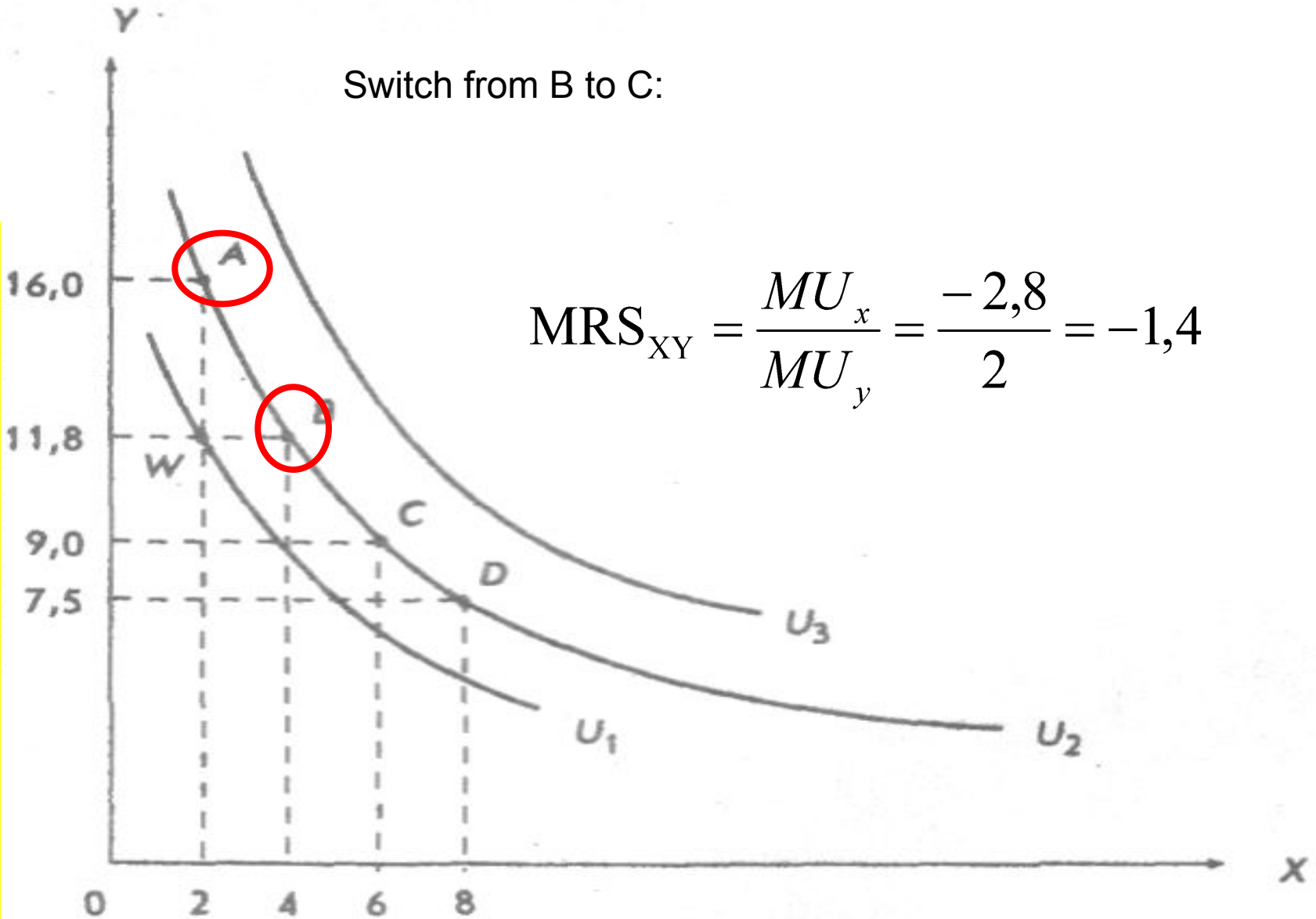


Quantity of X, consumed for some definite period

Switch from B to C:

$$MRS_{XY} = \frac{MU_x}{MU_y} = \frac{-2,8}{2} = -1,4$$

Quantity of Y, consumed for some definite period

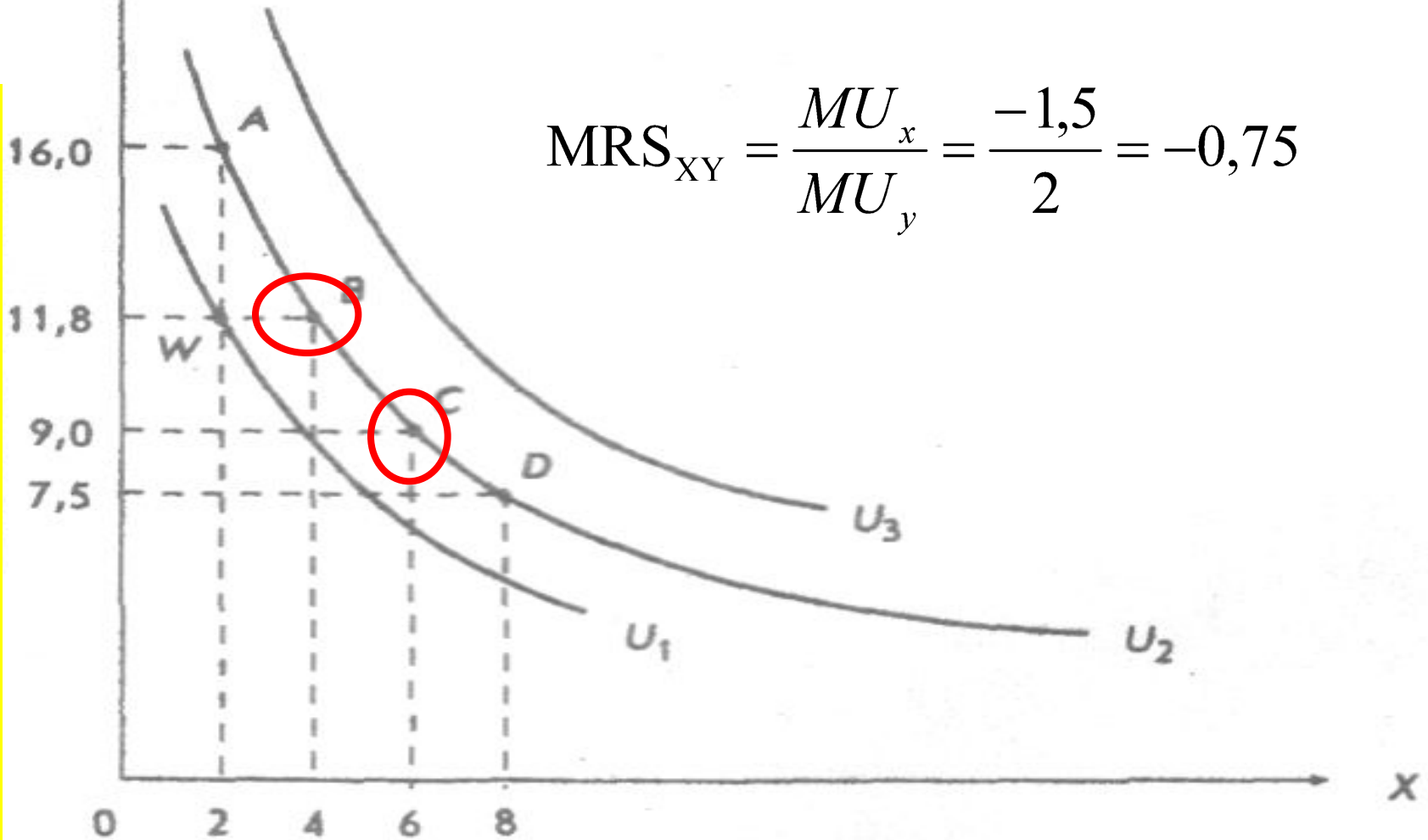


Quantity of X, consumed for some definite period

Quantity of Y, consumed for some definite period

Switch from C to D:

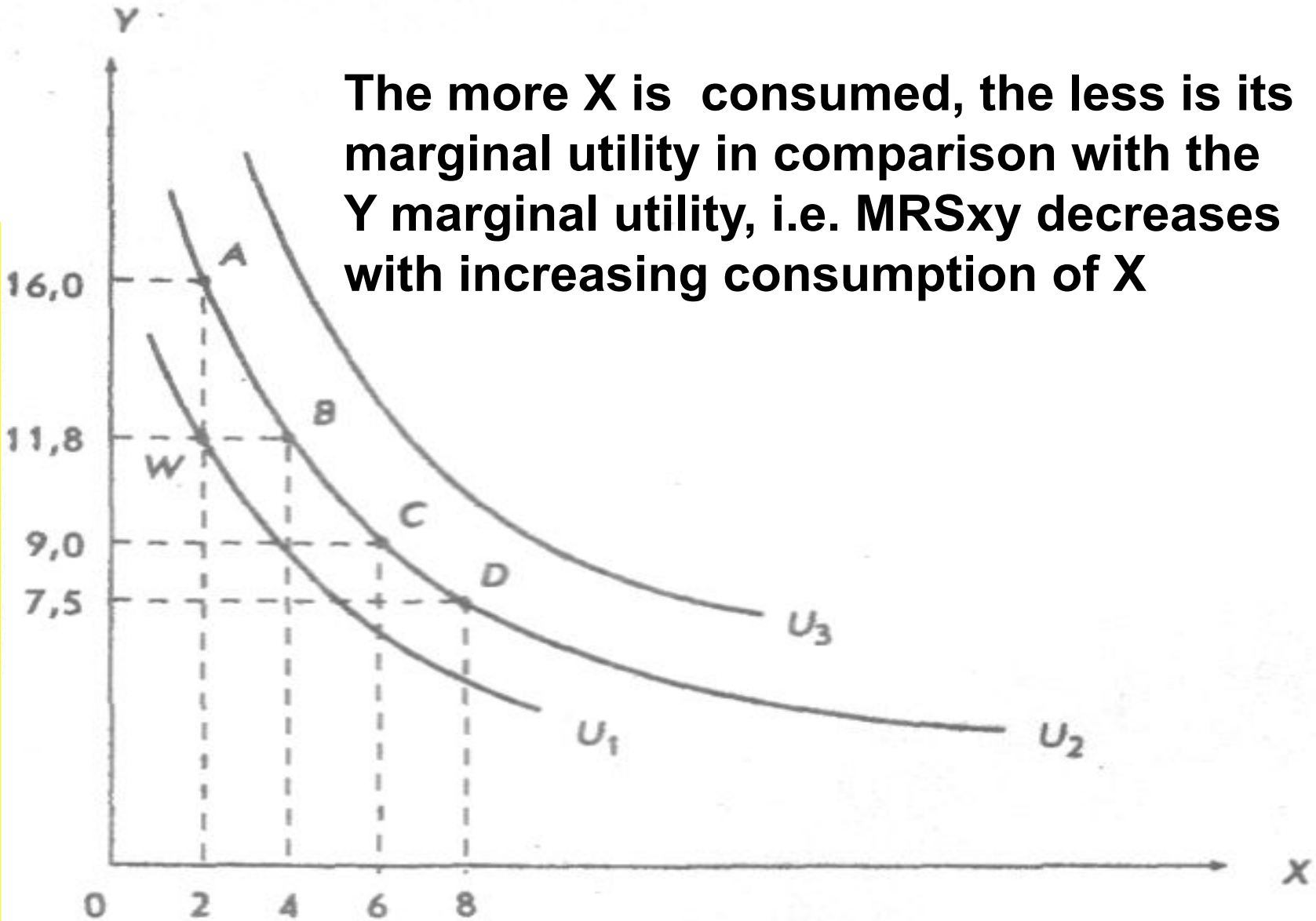
$$MRS_{XY} = \frac{MU_x}{MU_y} = \frac{-1,5}{2} = -0,75$$



Quantity of X, consumed for some definite period

The more X is consumed, the less is its marginal utility in comparison with the Y marginal utility, i.e. MRS_{xy} decreases with increasing consumption of X

Quantity of Y, consumed for some definite period



Quantity of X, consumed for some definite period

Constantly decreasing MRS is a logical result of the assumption that the marginal utility of the product decreases as we acquire more of it



Ex: