

M.A./M.Sc IV sem Statistics
Maximization of utility function.

The utility maximization rule states:
Consumer decide to allocate their money incomes
so that last dollar spent on each product
purchased yields the same amount of extra
marginal utility.

The utility maximization model is built
based on the following assumptions:

1. Consumers are assumed to be rational,
trying to get the most value for their money
2. Consumer's income are limited because their
individual resources are limited. They face a
budget constraint
3. Consumer have clear preferences for various
goods and services, thus they know their
maximum utility each successive units of
the product.
4. Every item has a price tag. consumer
must choose among alternative goods with
their limited money incomes.

Utility and elasticity of demand are important concepts in explaining consumer behaviour.

- (a) Define marginal utility
 (b) The table below shows the quantities, prices and marginal utilities of two goods, fudge and coffee which Mandy purchases

	Fudge	Coffee
Quantity of Purchase	10 Pounds	7 Pounds
Price Per Pound	\$2	\$4
Marginal utility of last pound	12	20

MU = The increment benefit again satisfaction from one or more unit of something.

Mandy spends all her money and buys only these two goods. In order to maximize utility should Mandy purchase more fudge & less coffee purchase more coffee & less fudge or maintain her current

$$\text{Fudge: } \frac{MU}{P} = \frac{12}{2} = 6 \quad \left. \begin{array}{l} \\ \end{array} \right\} \text{MU = Marginal utility}$$

$$\text{Coffee} = \frac{MU}{P} = \frac{20}{4} = 5$$

Mandy should buy more fudge because MU per dollar is higher than coffee.