## Example of Consumer Theory :-

Let's look at an example. Kyle is a consumer with a budget of $200, who must choose how to allocate his funds between pizza and video games (the bundle of goods). If a pizza costs $10 and a video game cost $50, Kyle could buy 20 pizzas, or four video games, or five pizzas and three video games. Alternatively, he could keep all $200 in his pocket.

How can an outsider predict how Kyle is most likely to spend his money? Consumer theory can help give an answer to this question.

## Limitations of Consumer Theory:-

Challenges to developing a practical formula for this situation are numerous. For instance, as behavioral economics points out, people are not
always rational and are occasionally indifferent to the choices available. Some decisions are particularly difficult to make because consumers are not familiar with the products. There could also be an emotional component involved in the decision-making process that isn't able to be captured in an economic function.

The many assumptions that consumer theory makes means it has come under heavy criticism. While its observations may be valid in a perfect world, in reality there are numerous variables that can expose the process of simplifying spending habits as flawed.

Going back to the example of Kyle, figuring out how he will spend his $200 is not as clear-cut as it might at first seem. Economics assumes he understands his preferences for pizza and video games and can decide how much of each he wants to purchase. It also presumes there are enough video games and pizzas available for Kyle to choose the quantity of each he desires.

## Consumer Theory: Preferences:-

List of specific quantities of distinct goods and services

 Example: Two goods x and y. (x,y) = (quantity good x, quantity good y)

e.g. (x,y)=(coffee, shoes)

Consumer has to be able to rank all the bundles in order to identify which one he likes the most.

We simplify the problem by assuming that there are only two goods, x and y (e.g., food and clothes).

| BUNDLE | UNIT OF FOOD (x) | UNIT OF CLOTHES(y) |
|--------|------------------|---------------------|
| B | 10 | 50 |
| C | 20 | 30 |
| D | 40 | 20 |
| E | 30 | 40 |
| F | 10 | 20 |

We will assume that goods a perfectly divisible so that every point in the positive part of the real plane is a possible bundle.



Y-Values
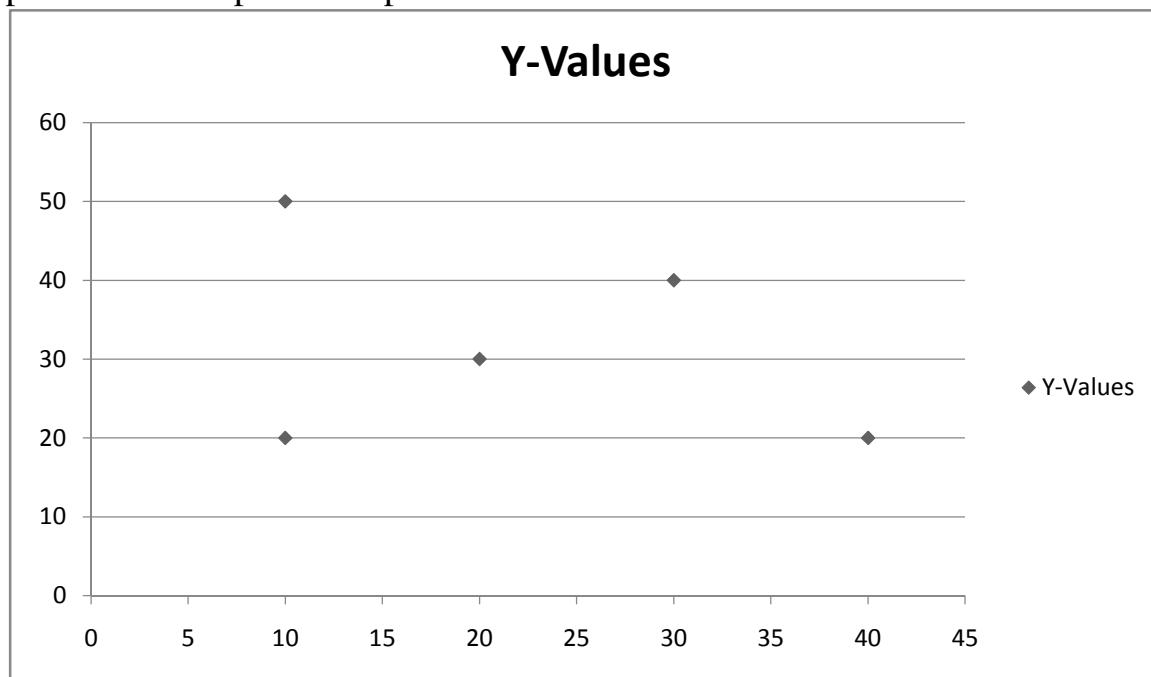
Let A=(x,y) and B=(x',y') be two bundles.

$\gtrsim$ : preference relation; A $\gtrsim$ B (A is preferred or indifferent to B).

$\succ$ : strict preference relation;

A $\succ$ B (A is preferred to B) -- A $\gtrsim$ B, but not B $\gtrsim$ A. ~:

indifference relation; A ~ B (A is indifferent to B) -- A $\gtrsim$ B and B $\gtrsim$ A.

Examples:

Let A = (x,y) and B = (x',y') be two bundles.

1. Pareto: A $\gtrsim$ B if $x \geq x'$ and $y \geq y'$.

2. Lexicographic: A $\gtrsim$ B if $x > x'$ or [x = x' and $y \geq y'$].

3. Goods and "Bads" (pollution, waste): A $\gtrsim$ B if $x - y \geq x' - y'$.

4. Perfect substitutes: A $\gtrsim$ B if $x + y \geq x' + y'$.

5. Imperfect substitutes: A $\gtrsim$ B if $xy \geq x'y'$.

6. Complements: A $\gtrsim$ B if $\min\{x,y\} \geq \min\{x',y'\}$.