



Math for the people, by the people.

utility

Canonical name	Utility
Date of creation	2013-03-22 12:51:59
Last modified on	2013-03-22 12:51:59
Owner	Henry (455)
Last modified by	Henry (455)
Numerical id	8
Author	Henry (455)
Entry type	Definition
Classification	msc 91A99
Defines	utility
Defines	utility function

Utility is taken to be an absolute, accurate measurement of how desirable something is; in particular, it differs from money in three key ways.

First, desire for it is linear (generally in economics and game a person with a lot of money receives less utility from an additional amount of money than someone with very little money).

Second, when modeling a situation, utility should include all external (the happiness received from doing a good deed, for instance).

Third, different people's utility is incomparable. It is meaningless to ask whether one person gets more utility from a situation than another person does. Utilities for a given person can be compared only to other utilities for that person.

A utility function is a function which specifies how much utility a player gets for a particular outcome. It maps the space S of all possible strategy profiles to \mathbb{R} .