

# Auction Theory: Applications to eBay

by

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## Abstract

Auctions are designed to allocate some physical item to an entity who “wants it the most”. For example, the person who wants a car at auction would probably bid the highest for it. Authors of auction theory normally assume the fact that the bidder who wants the item most will win; “valuation” or “value” are used interchangeably to define this “want” metric.

The main question that Auction Theorists and Economists ask is “How should a bidder wager assuming that everyone uses the same bidder strategy?” The answer to this question will be applied to general auctions, then ultimately applied to auctions of the largest auction website, eBay.

Unfortunately, there are difficulties in determining if eBay bidders actually follow the strategies outlined since some information is held private by the bidder. However, there are strategies that do not require this piece of information and these will be explored in depth.