

A Simple Example of a Multiunit Ascending Auction

Robert A. Miller

Carnegie Mellon University

October 2023

A Simple Example of a Multiunit Ascending Auction

Description

- The auction lasts 10 minutes.
- There are two identical objects up for sale.
- Each bidder only wants one of the objects, not both.
- Bidders can submit bids until the auction ends after 10 minutes.
- Bidders may increase their bids, but cannot reduce or withdraw them.
- The reserve price is \$1.
- If her highest bid is at least \$1, and her bid is one of the two highest, then the bidder wins one unit and pays her highest bid.
- Either or both objects are withdrawn from the auction if the reserve price is not met.

A Simple Example of a Multiunit Ascending Auction

What might happen

- The auction begins with a reserve rate of \$1.
- *A* bids \$2 in minute 1 and the ONM remains at \$1.
- *B* bids \$1 in minute 3 and the ONM remains at \$1.
- *C* bids \$4 in minute 5 and the ONM increases to \$2.
- *D* bids \$3 in minute 7 and the ONM increases to \$3.
- *B* raises her bid to \$5 in minute 9, and the ONM rate increases to \$4.
- The auction ends with *B* paying \$5 for a unit, *C* paying \$4 for a unit, while *A* and *D* neither pay nor win.

A Simple Example of a Multiunit Ascending Auction

A picture

