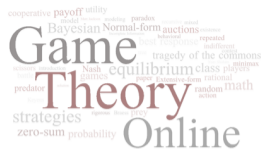


First and Second-Price Auctions

- The k^{th} **order statistic** of a distribution: the expected value of the k^{th} -largest of n draws.
- For n IID draws from $[0, v_{max}]$, the k^{th} order statistic is

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- Thus in a second-price auction, the seller's expected revenue is

$$\frac{n - 1}{n + 1} v_{max}.$$



