Lecture Notes week 5

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Contents

1 Lecture 1

Optimal bidding strategy $s(v)$ (first price, [0,1], two bidders). Assume $s(v)$ is monotone rising.

So E(gain of player 1 | bid $s(v_1)$) $\geq$ E(gain of player 1 | bid $s(v)$).

$P(s(v_2) \leq s(v_1)) \cdot (v_1 - s(v_1)) \geq P(s(v_2) \leq s(v)) \cdot (v_1 - s(v))$

$P(v_2 \leq v_1) \cdot (v_1 - s(v_1)) \geq P(v_2 \leq 0) \cdot (v_1 - s(v))$

2 Lecture 2