

# Exercise 12.1: Optimal Pricing

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### Setup:

- you have one item to sell.
- buyer with value from exponential distribution
- exponential distribution cdf  $F(z) = 1 - e^{-z}$

### Questions:

- What price should you offer to maximize your expected revenue?

# Lecture 12: Revenue Maximization

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- partial feedback
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## Today:

- ~~equilibrium of no-regret learning  
(coarse correlated equilibrium)~~
- revenue of auctions

# Exercise 12.2: Pricing Lotteries

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### Setup:

- buyer with value  $U[0, 1]$
- menu of options:
  - 1 price of 0: receive nothing
  - 2 price of  $1/6$ : receive item with probability  $1/2$
  - 3 price of  $1/2$ : receive item with probability 1

### Questions:

- what value of buyer is indifferent between options (1) and (2)?
- what value of buyer is indifferent between options (2) and (3)?
- what is expected revenue when buyer buys preferred option?