

Homework

Chapter 4 Bidding for Ad Spaces

1. (20 points) Three advertisers (1, 2, and 3) bid for two ad spaces (A and B). The average revenues per click are \$6, \$4, and \$3 for the bidders 1, 2, and 3, respectively, and the click-through rates of the ad spaces are 500 and 300 clicks per hour for A and B, respectively.
 - a. (10 points) Draw the **bipartite graph** with nodes indicating advertisers/ad spaces and edges indicating valuation per hour. Indicate the **maximum matching** with **bold** lines.
 - b. (10 points) Assume a GSP auction with truthful bidding, what is the result of the auction in terms of the allocation of space to bidder, the prices charged, and the payoffs received?