

Problem. Beverly owns a vacation home in Cape Fulkerson that she wishes to rent for the summer season (May 1 to September 1). She has solicited bids from eight potential renters:

Renter	Rental start date	Rental end date	Amount of bid (\$)
1	May 1	June 1	1800
2	May 1	July 1	3400
3	June 1	July 1	2000
4	June 1	August 1	4000
5	June 1	September 1	4800
6	July 1	August 1	1600
7	July 1	September 1	3200
8	August 1	September 1	1400

A rental starts at 3:00 P.M. on the start date, and ends at 12:00 P.M. on the end date. As a result, one rental can end and another rental can start on the same day. However, only one renter can occupy the vacation home at any time.

Beverly wants to identify a selection of bids that would maximize her total revenue. Formulate Beverly's problem as a shortest path problem. (You don't need to write the linear program. Just specify the network, the source and sink, and the arc lengths.)