## **GOAL**

Purchase "ad spots" for an advertiser that will allow the advertiser to reach at least 80% of the total audience using as little spend as possible.

## **DATA**

"viewership.csv" – Panelists that show up on each ad spot.

"panelist\_weight.csv" tab — Weights associated with each panelist. This is the number of impressions that will count towards unique reach from each panelist once they are served an ad. Total audience size is the sum of these weights.

"ad\_spot\_cost.csv" - Cost of purchasing each specific ad spot.

## **RULES**

The total audience is the sum of all panelists A-Z's weights.

A panelist counts as "reached" if they appear in the panelist list for an ad spot that was purchased.

Take panelist overlap between ad spots into consideration. If panelist A shows up on ad spots 1 and 2, if you purchase both spots, panelist A will still only contribute to your reach one time.

Remember reach is in terms of panelist weight. Reaching panelist A will contribute the weight of panelist A to your reach.

Note that panelists may be duplicated within an ad spot, but "reached" still only means that they saw the ad at least once.

Ties will be broken by time of submission.