

SAMK's advertising problem

SAMK has budgeted up to 8000€ per week for local advertisement. The money is to be allocated among four promotional media: TV spots, newspaper ads, and two types of radio advertisements. The goal is to reach the largest possible high-potential audience through the various media. The following table presents the number of potential customers reached by making use of advertisement in each of the four media. It also provides the cost per advertisement placed and the maximum number of ads than can be purchased per week.

Medium	Audience reached per ad	Cost per ad	Max ads per week
TV spot	5000	800	12
Newspaper	8500	925	5
Radio (30s, prime)	2400	290	25
Radio (1min, afternoon)	2800	380	20

The company arrangements require that at least five radio spots be placed each week. To ensure a board-scoped promotional campaign, management also insists that no more than 1800€ be spent on radio advertising every week.