PRINCESS BRIDES

[PURE INTEGER PROGRAMMING]

Justice Inkoom

SCENARIO

- Liz Bailey is the owner of Princess Brides, a wedding dress retailer. She uses radio to market and two types of ads are available – those during prime time and those at other times.
- Each prime time ad costs $390 and reaches 8,200 people on average. Off-peak ads cost $240 and reach 5,100 people on average. Bailey has a budget of $1800 per week for advertising.
- She wants at least 2 prime time ads and no more than 6 off-peak ads.
- Find the best mix of ads to purchase so the most people are reached.

LINEAR PROGRAMMING MODEL

	prime	off-peak
variables:	4	1
	8200	5100

constraints:			LHS	SIGN	RHS
budget	390	240	1800	<=	1800
prime	1		4	>=	2
off-peak		1	1	<=	6

most people reached: 37900

SUMMARY

- Liz should use 4 prime time and 1 off-peak to reach a maximum of 37900 people on average.

- NOTE:
- This is a pure integer programming problem so the variables should always be integers. The solver Ad-In in Excel has the option for that.

THANK YOU