

- A large drug company must determine how many sales representatives to assign to each of four sales districts. The cost of having R representatives in a district is $(\$88,000 + \$80,000R)$ per year.
- If a rep is based in a given district, the average time (in hours) required to complete a call on a doctor in each of the four districts is given in the table below:

District of Rep	District of Call			
	1	2	3	4
1	0.9	4.1	5.4	6.8
2	3.3	1.7	2.6	5.3
3	4.5	3.0	1.4	1.9
4	6.5	5.3	2.4	1.3

- Each sales rep can work up to 160 hours per month, and the required numbers of monthly calls for each district are:

District	# of Calls
1	150
2	240
3	300
4	180

- Provide an integer programming algebraic formulation that can be used to determine the least costly assignment of representatives to districts.