

2. St. Mary's hospital is a medium sized hospital in Newport News, VA. St. Mary began a new process to make sure patients receive the hottest meals possible. St. Mary food service manager plans to deliver meals in bulk to three recently installed serving stations in the hospital. From the serving stations, the food will be reheated, and meals will be placed on individual trays, placed on a cart, and served to the patients on the different floors and wings of the hospital.

The three serving stations have been strategically placed throughout the hospital for optimal efficiency. The table below presents the location name and the meal capacity at each location.

Station Location	Meal Capacity
SL1	225
SL2	225
SL3	250

Saint Mary's hospital has six wings with the number of patients each as follows:

	Wing 1	Wing 2	Wing 3	Wing 4	Wing 5	Wing 6
Patients	100	100	150	200	70	80

St Mary's Hospital wants to increase the temperature of the meals served to patients. Thus, the amount of time needed to deliver a tray from a serving station to a patient determines the proper distribution of food to each wing. The time associated with each possible distribution from station to wing is listed in the table below.

Delivery Time in Minutes						
To: From:	Wing 1	Wing 2	Wing 3	Wing 4	Wing 5	Wing 6
5A	12	11	8	9	9	6
3G	6	12	7	7	5	8
1S	8	9	6	6	7	9

What is your recommendation for handling the distribution of trays from the three serving stations? (Show all work for maximum credit)