9. The Restwell Motel in Orlando, Florida, is preparing an aggregate plan for the upcoming twelve days. The motel has a maximum of 200 rooms, but demand varies during the week. Demand is listed in terms of rooms rented each day. The motel requires one employee, paid $105 per day for each 12 rooms rented on regular time. It can utilize up to 20 percent overtime at time and a half and also can hire part-time workers at $120 per day. Each part-time worker can also clean 12 rooms per day. There is no hiring and layoff cost for the part-time workers. A fractional number of part-time workers (e.g., 3.4 workers) can be employed since less than a full day of employment is possible for each worker.

Day	M	T	W	Th	F	S	Su	M	T	W	Th	F
Demand	185	190	170	160	110	100	100	160	180	170	150	100

a. Assume a steady regular workforce of 10 employees, 20 percent overtime when needed, and the balance of demand met by part-time workers. How much does this strategy cost over the 12-day planning horizon. When needed to meet demand, assume maximum overtime is used before part-time workers are hired.

b. What is the total cost over the 12-day planning horizon if the regular workforce of 10 employees and only part-time workers are used? No overtime is used?