

## Attendance Quiz for Lecture 16

NAME: (print!) \_\_\_\_\_

E-MAIL ADDRESS: (print!) \_\_\_\_\_

1. Perform one iteration in solving the following transportation problem, where  $\mathbf{s}$  is the **supply vector**,  $\mathbf{d}$  is the **demand vector**, and  $\mathbf{C}$  is the **cost matrix** between the supply sites and the demand sites.

$$\mathbf{C} = \begin{bmatrix} 5 & 2 & 3 & 6 \\ 2 & 7 & 7 & 4 \\ 1 & 3 & 6 & 9 \end{bmatrix}, \quad \mathbf{s} = \begin{bmatrix} 100 \\ 80 \\ 140 \end{bmatrix}, \quad \mathbf{d} = \begin{bmatrix} 60 \\ 60 \\ 80 \\ 120 \end{bmatrix}.$$

starting from the following basic feasible solution obtained by Vogel's method (last time, in attendance quiz 15)

$$\begin{bmatrix} 0 & 20 & 80 & 0 \\ 0 & 0 & 0 & 80 \\ 60 & 40 & 0 & 40 \end{bmatrix}$$