Problem set 5 on adverse selection, due Monday 5/16/2016

For each problem, you are given the vector of costs c and the matrix of benefits b. Find x^*, which is the matrix that includes the most participants, of those participation matrices that can exist in an equilibrium. Also, find the range of premium prices p^* that can be supported in the equilibrium, and the deadweight loss D.

1. $c = [6 \quad 12 \quad 18] \qquad b = \begin{bmatrix} 7 & 13 & 19 \\ 9 & 15 & 21 \\ 11 & 17 & 23 \end{bmatrix}$

2. $c = [4 \quad 8 \quad 16] \qquad b = \begin{bmatrix} 5 & 9 & 17 \\ 7 & 11 & 19 \\ 9 & 13 & 21 \\ 15 & 19 & 27 \end{bmatrix}$

3. $c = [6 \quad 12 \quad 18 \quad 24 \quad 36] \qquad b = \begin{bmatrix} 7 & 13 & 19 & 25 & 37 \\ 9 & 15 & 21 & 27 & 39 \\ 13 & 19 & 25 & 31 & 43 \end{bmatrix}$