University of Toronto
MATB61 – Linear Programming and Optimization

Quiz 6

First Name: .....
Last Name: .....
Student Number: .....

1) Reduce the following matrix by dominance:

$$\begin{bmatrix} 30 & 26 & 14 & 12 & 21 & 19 \\ 12 & 23 & 18 & 18 & 26 & 23 \\ 19 & 29 & 20 & 15 & 27 & 15 \\ 16 & 30 & 21 & 24 & 25 & 22 \\ 12 & 18 & 19 & 16 & 25 & 12 \\ 16 & 15 & 14 & 15 & 14 & 15 \end{bmatrix}$$

2) Column player has three cards $\{1, 2, 3\}$ and select 1 card. The row player has one chance to guess the card number correctly. If row player's guess is right, he wins the number of his guess; otherwise he loses half of the absolute value of the difference of column player's choice and his guess.

(a) Set up the payoff matrix.

(b) Find the LP problem (in "standard from") of column player's optimal strategy.