Misterm 3 Solutions

1. The value of game is 0.
An optimal strategy for Player I is:
$(0.5,0.5,0,0)^T$
An optimal strategy for Player II is:
(0,0.5,0.5,0)

2. The value of game is 2.
An optimal strategy for Player I is:
(0.5,0.5,0)
An optimal strategy for Player II is:
(0,0,1,0,0)

3. x = 2.5 min = 17. The x is the mean of 1, 1, 2, 6

4. Any x | $1 \leq x \leq 2$. This is the medians of 1, 1, 2, 6

5. x = 8/3 min = 10/3

Grading Scales

Problem 4
If approximated:
2.5 12/15
3 10/15

Problem 5
If no work shown:
2.5 2/15
3.5 6/15

If value is approximated:
2.625 14/15
2.5 13/15
3 12/15
2 or 3 11/15
2 10/15
3.4 9/15
$1 \leq x \leq 2$ 8/15