MATH 401

- 1. Prob. 10, sec. 9.1, Lay.
- 2. Find optimal strategies and the value of the matrix game whose matrix is

$$\begin{bmatrix} 3 & 2 & 5 & 2 \\ -1 & 9 & 0 & 8 \end{bmatrix}$$

- 3. Prob. 1, 8, sec 9.2, Lay.
- 4. Prob. 14, 16, sec 9.3, Lay.
- 5. Prob. 20, 22, sec 9.4, Lay.
- 6. A popular brand of cattle feed is a mixture of corn grain, hay, and wheat germ. The feed is mixed to order, so that each farmer specifies the mixture he wants. Suppose a farmer wants his mixture to contain at least ten pounds of protein, five pounds of fat, and four pounds of vitamin and mineral substances. The following information is available to the farmer:

## Contents (per 100 pounds)

Ingredient	$\frac{\text{Protein}}{(\text{lbs})}$	Fat (lbs)	Vitamins & Minerals (lbs)	Cost (per 100 pounds)
Corn Grain Hay	$2 \\ 5$	7	$\frac{2}{2}$	\$1.25 \$1.40
Wheat Germ	8	2	3	\$1.75

Determine how many pounds of corn grain, hay, and wheat germ the farmer should order for his mixture, so that the cost is a minimum. Note: You really need to use MATLAB on this one.