

Today we discuss

1. the topics covered in MA 242 in general terms and
2. how this course will operate.

Rough Outline of MA 242

1. Linear Equations and Transformations
 - (a) row reduction
 - (b) solution sets of linear equations
 - (c) linear transformations
2. Matrix Algebra
 - (a) matrix operations
 - (b) invertible matrices
 - (c) computer graphics
3. Determinants
 - (a) definition and properties
 - (b) geometric interpretation
4. Abstract vector spaces
 - (a) vector spaces and subspaces
 - (b) bases and dimension
5. Eigenvalues and eigenvectors
 - (a) eigenspaces
 - (b) diagonalization
6. Miscellaneous topics

Linear programming example:

Vitamin	Food 1	Food 2	Required Amount
A	30 units/ounce	20 units/ounce	120 units
B	40 units/ounce	10 units/ounce	80 units
C	20 units/ounce	40 units/ounce	100 units
Cost	10 cents/ounce	15 cents/ounce	

Fractals: