

**Math 224**  
**Daily Objectives**  
**Class Session 8**  
**Thursday, September 20, 2007**

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### **2.3: Linear Transformations of Euclidean Spaces**

- Definition of a linear transformation
- Bases and linear transformations
- Standard matrix representation of a linear transformation
- Range of a linear transformation; rank of a linear transformation
- Kernel of a linear transformation; nullity of a linear transformation
- Linear transformations preserve subspaces
- Matrix multiplication and composite transformations
- Invertible matrices and inverse transformations