

Lecture 36: review

Dr. M. Harada: intro to 2S.

office hours ~~W~~ W F 10:30-12:00

during exam period
except W. Dec 19th.

and T Dec 18th 10:30-12:00

or by appointment.

Level: review session probably Thursday
3:30? Dec 13th.

Chapter 7: Linear Transformations.

Key ideas: 1) Isomorphism

$$\mathbb{P}_n \cong \mathbb{R}^{n+1}$$

2) kernel and image - give subspaces

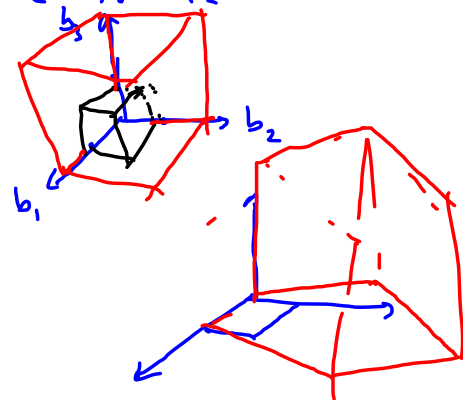
Chapter 9: Change of Basis

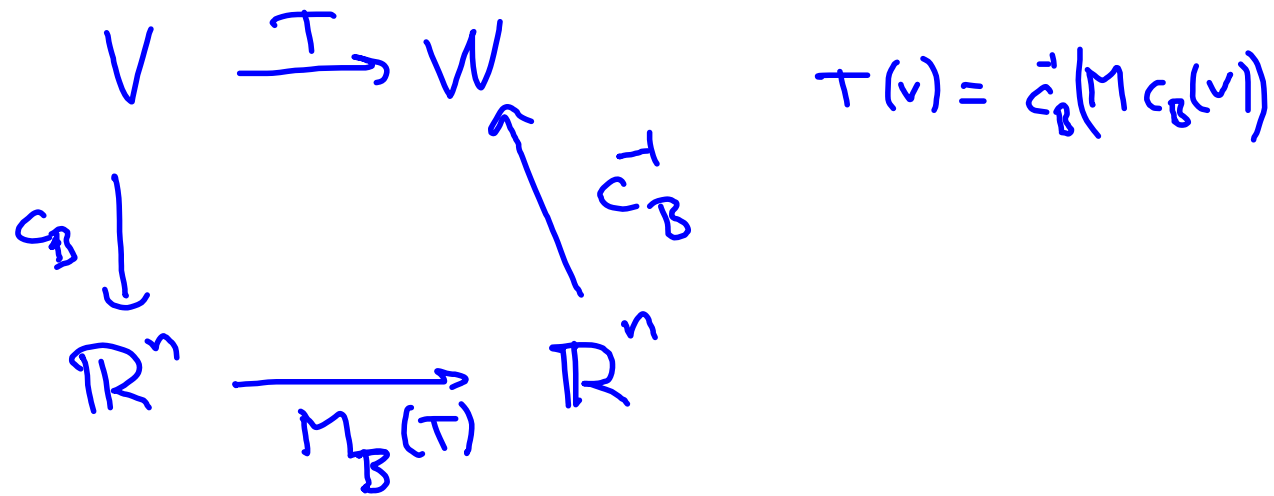
Key idea: 1) use isomorphism of V with \mathbb{R}^n to write a linear transformation as a matrix.

2) choose a basis so that matrix has a nice form.

$$\begin{matrix} b_1 & b_2 & b_3 \\ \begin{pmatrix} a & 0 & 0 \\ 0 & b & 0 \\ 0 & 0 & c \end{pmatrix} \end{matrix}$$

$$\left(\begin{array}{c|c} * & 0 \\ \hline 0 & c \end{array} \right)$$





Ch 10: Inner product Spaces.

Key idea: inner product gives a notion of distance.

