

PROBLEM SET 2, 25600 SECTION 31

Due Friday April 10 in class.

1. (10 points) Let

$$A = \begin{pmatrix} 6 & -3 & 2 \\ 33 & -20 & 15 \\ 34 & -22 & 17 \end{pmatrix}$$

Find a matrix C such that $B = C^{-1}AC$ is in Jordan canonical form, and use this to compute A^{10} . (No points for computing A^{10} directly.)

2. (5 points) Fraleigh, problem 31-6.
3. (5 points) Fraleigh, problem 31-19, the even parts.
4. (5 points) Fraleigh, problem 31-22.
5. (5 points) Fraleigh, problem 31-23.
6. (5 points) Fraleigh, problem 31-29.
7. (5 points) Fraleigh, problem 31-30.