

Matricies #1 - MA221 - Rickert

Due for discussion: Tuesday, September 4, 2007

Let $z = 3 + 4i$, Let $M = \begin{pmatrix} z & i \\ -i & \bar{z} \end{pmatrix}$. Let $A = \begin{pmatrix} 1 & 7 \\ 0 & -\frac{1}{2} + i\frac{\sqrt{3}}{2} \end{pmatrix}$. Let $v = \begin{pmatrix} 3 \\ 5 \end{pmatrix}$.

1 What are the trace and determinant of M ?

2 What is M^2 ?

3 What are the trace and determinant of M^2 ?

4 What are the trace and determinant of M^3 ?

5 What is MA ?

6 What is A^3 ?

7 what is Mv ?

8 What is Av ?

9 What is A^2v ?

10 What is A^3v ? Why?