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MATH 223 LINEAR ALGEBRA

Quiz 8

28.12.2004

Name

Student No.

Sign

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*You will not get any points if your answer is wrong, that is no points to your explanations if your answer is wrong. And of course no points to a correct answer if your explanation or proof is not correct or clear.*

*YOU must write GOOD Mathematics*

1. Suppose the characteristics and the minimal polynomial of an operator are respectively  $f(t) = (t + 1)^2(t - 2)^4$  and  $m(t) = (t + 1)(t - 2)^2$ . Then find all possible Jordan canonical forms of  $T$ .  
SOLUTION:

2. Determine all matrices (may be similar)  $A \in M_{2 \times 2}(\mathbb{R})$  for which  $A^2 + 3A + 2I = 0$ .  
SOLUTION: