2) a) max mag (A) = max ||A n||
2 ||M ||
Let A x = y > n = A'y : max mag (A) = max 11 y 11  $=\frac{1}{min}\frac{||A^{-1}Y||}{||Y||}=\frac{1}{minimag(A^{-1})}$ b) cond (A) = 1/A/1/1/A 1/2 = max mag (A) max mag (A-1) = max mag(A) x \_\_\_\_\_\_ minimag ((A') ) max mag (A) minimag (A)