MECH 6300 HW2

3) $A' = P^{-1}AP$ $P \equiv$ invertible

$$|sI - A| = |sI - A'|$$

$$= |sI - P^{-1}AP|$$

$$= |P^{-1}sIP - P^{-1}AP|$$

$$= |P^{-1}(sI - A)P|$$

$$= |P^{-1}||sI - A||P|$$

$$= |P^{-1}||P|'|sI - A|$$

$$|sI - A| = |sI - A|$$

same characteristic Polynomial...