

Some Observations

PROP 10: $\det A = \det A^T$ (this is difficult to prove - see the text)

PROP 11: $\det(A^{-1}) = \frac{1}{\det A}$

Proof: $A^{-1}A = I \Rightarrow |A^{-1}A| = |I| = 1 \Rightarrow |A^{-1}| \times |A| = 1$ and the result now follows.

Observations:

- \det is a linear function of any of the rows (why?)
- G-E is an effective tool for computing determinants
- by PROP 10 we can also simplify A using column operations
- if A has a zero column or two identical columns, then $\det A = 0$