Lecture 22, Mar 11, 2022

More Determinant Properties

- Proposition I: Let $\boldsymbol{D} \in {}^n\mathbb{R}^n$ be a diagonal matrix with entries $d_1, \cdots, d_n$ on the diagonal, then $\Delta_n(\boldsymbol{D}) = \Delta_n(\mathbf{1}) \prod_{i=1}^{n} d_n$
- Proposition II: Let $\boldsymbol{U} \in {}^n\mathbb{R}^n$ be an upper triangular matrix, then $\Delta_n(\boldsymbol{U}) = \Delta_n(\mathbf{1}) \prod_{i=1}^{n} u_{ii}$
  - Start at the bottom row, make it a 1, cancel the column, etc