Quick Review

- Error Correcting Codes (ECCs) use redundancy to guard against info loss
- Erasures / Corruptions are main sources of error
  - ↳ Erasures delete parts of message
  - ↳ Corruptions change parts of message
- If you want to send a message of length n, encode it as a polynomial in $GF(q)$ of degree $n-1$ (q is a large prime)
  - ↳ If you have K erasures, send $n+K$ points.
  - ↳ If you have K corruptions, send $n+2K$ points.
- Decoding corruptions is tricky
  - ↳ Use error polynomial $E(x)$ to generate a system of linear equations
  - ↳ ~~$\forall i,\ P(i) = r_i E(i)$~~
  - ↳ $\forall i,\ P(i)\,E(i) = r_i\,E(i)$