Homework Assignment 8
Due week of March 12

This assignment is meant to supplement your RS decoder project. Please turn in at the time you demonstrate your decoder.

Problems to Hand In:

**Problem 1.** Suppose you select a 31-character word *at random*, and give it to your decoder. What is *likely* to happen? Please give both an experimental and a theoretical answer.

**Problem 2.** Suppose you select a 16-character word at random and append 15 erasure symbols. Same question.

**Problem 3.** Suppose you select a 8th degree polynomial $s(x)$ over $GF(32)$ at random. What is the probability that $s(x)$ will have 8 distinct roots in $GF(32)$?