This quiz is open book, open notes, open laptop. You may run the C compiler, but don’t spend too much time debugging.

1. Write a function named `interleave` that takes two C strings and returns a new heap-allocated string that contains the letters from the two strings interleaved.

For example, `interleave("clips", "aloe")` should return the string `calliopes`. 
2. The Khmer alphabet contains 35 consonants. If you were designing a code similar to ASCII to encode Khmer, how many bits would you need to store a consonant?

3. If you have 16 GiB of memory divided into 2 KiB pages, how many pages are there? What’s the fewest number of bits you could use to store a physical address?