Exercises 2 – 5 are programming problems. Submit them in a single file named a04.rkt electronically per the instructions for your course.

1. Study Hailperin, Chapter 5.

2. Do Hailperin, Exercise 2.12.
   Name your function exponent-of-two with one parameter.

3. Do Hailperin, Exercise 5.1.
   Your version of together-copies-of must have three parameters as does the original version. It should call a function with four parameters using the usual technique for making a tail-recursive function.

4. Do Hailperin, Exercise 5.4.
   You must supply a boolean expression to num-digits-in-satisfying, and the expression must be the shortest possible boolean expression.

5. Do Hailperin, Exercise 5.7.