

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.