Exercises

1. Write down a definition for each of bools/nums/add/copy/apply so that they have the following types:

   bools :: [Bool]
   nums :: [[Int]]
   add :: Int -> Int -> Int -> Int
   copy :: a -> (a,a)
   apply :: (a->b)->a->b

2. Define a function third :: [a] -> a that returns the third element of the input list that contains at least three elements, by means of the following:

   (a) head and tail;
   (b) pattern matching.

3. In a similar way to &&, as shown in the slides on Programming with Functions, show how the disjunction operator || can be defined in three different ways by means of pattern matching.