1. True/False: According to the Wikipedia article, MasterMind has similarities to an earlier
game called Cats and Dogs

2. True/False: MasterMind with only two colors is related to coin-weighing problems.

3. True/False: Solving a MasterMind board is an NP-complete problem.

4. Donald Knuth
   (a) Created the typesetting package TeX
   (b) Is author of “The Art of Computer Programming”
   (c) Wrote an early paper on MasterMind
   (d) All of the above

5. True/False: Knuth’s up-arrow notation is a method of notation for very large integers.

6. Consider the following code designed to take a positive integer:

   function S = toggle( N )
   X = zeros(1,N);
   for i=1:N
       for j=i:i:N
           X(j) = 1 - X(j);
       end
   end
   for i=1:N
       if X(i)
           S = i;
       end
   end

   What is returned if toggle(4) is executed?

7. For the toggle function from the previous question, in general what does it return as a
   function of N?