1. Item transport
   1. Problem
      1. Man must transport three items across a river
         1. 1 cat, 1 parrot, 1 bag of seed
      2. Only one boat available to transport items across river
   2. Sub-problems
      1. Boat only able to transport man and one other item at a time
      2. Cat cannot be left alone with parrot, or it will eat parrot
      3. Parrot cannot be left alone with seed, or it will eat seed
   3. Possible Steps Towards Solution
      1. Man transports parrot across river first, leaving cat and seed
         1. Man returns across river
            1. Leaves parrot
            2. Transports nothing
      2. Man transports cat across river, leaving seed
         1. Man returns across river
            1. Leaves cat
            2. Transports parrot back across
      3. Man transports seed across river, leaves parrot
         1. Man returns across river
            1. Leaves seed with cat
            2. Transports nothing
      4. Man transports parrot across river
   4. All items now across river
      1. Sub-problems avoided
         1. All items transported one at a time
         2. Cat never left alone with parrot
         3. Parrot never left alone with seed
2. Socks in the Dark
   1. Problem
      1. Select matching socks out of sock drawer
      2. Select from 20 total socks
         1. 10 black socks
         2. 6 brown socks
         3. 4 white socks
   2. Sub-problems
      1. Selection done in complete darkness
      2. Socks cannot be seen until after selection is made
      3. Have one matching pair
      4. Match one pair match for each color