1. A passcode is a 4-digit number (but leading zeroes are not allowed).
   (a) How many passcodes are there where all the digits are distinct?
   (b) How many passcodes are there with no two consecutive digits the same?
   (c) How many passcodes are there whose digits sum to 34?

2. Consider a collection of 30 different songs including 5 by Annisa.
   (a) How many orderings are there that begin and end with a song from Annisa?
   (b) How many orderings are there where the 5 songs by Annisa are consecutive?

3. Richard has a pack of 60 cards, 24 of which are identical Lumps and the remaining 36
   are all different (including BlackLettuce and LightningBrad). A hand of 5 cards is dealt
   randomly.
   (a) How many hands are there that contain BlackLettuce and at least 2 Lumps?
   (b) What are the odds of drawing a hand that contains exactly one of the two special
       cards?