

**Math 3160 Quiz 1 September 3, 2021**

**(1) Suppose a license plate must consist of 6 numbers or letters. How many license plates are there if**

**(a) there can only be letters?**

**(b) the first three places are numbers and the last three are letters?**

**(c) the first three places are numbers and the last three are letters, but there can not be any repetitions in the same license plate?**

**(2) Suppose there are 5 black pens and 3 red pens. How many ways can we choose 3 pens, if we need at least one of each color?**

**Extra credit question: write the numerical answer in (2)**