

Name: _____

QUIZ 7 

MATH 300
September 12, 2024

1. This problem concerns lists made from the five digits 1, 2, 3, 4, 5.

(a) How many length-4 lists are there if repetition is **not** allowed?

(b) How many length-4 lists are there if repetition is allowed?

(c) How many length-4 lists are there if repetition is allowed, and the first two entries are odd?

(d) How many length-4 lists are there if repetition is **not** allowed, and the first two entries odd?

2. Five cards are dealt off of a shuffled 52-card deck and lined up in a row.

(a) How many such 5-card lineups are there in which all five cards have the same color?
(i.e., all red, or all black)

(b) How many such 5-card lineups are there in which **not** all five have the same color?