

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**WS 8.2 Extra Practice Permutations & Combinations**

- 1) A fair die whose faces are numbered from 1 to 6 is thrown 3 times in a row. How many possible results are there?
  
- 2) How many 3-letter code words can be formed by repeated use of the letters of the alphabet?
  
- 3) In how many different ways can you draw 2 cards from a deck of 52 cards if the first card is replaced before the second one is drawn?
  
- 4) How many different 2 digit numbers can be formed from the digits 1,2,3,4, and 5 if no repetitions are allowed?
  
- 5) How many combinations with repetition can be made from 10 objects taken 4 at a time?
  
- 6) Two prizes are awarded in a class of 20 students. Each student can win both prizes. How many different pairs of winners are possible if the order in which the prizes are awarded is not considered?
  
- 7) A committee of 3 people must be formed from a club of 5 members. How many different committees are possible?
  
- 8) How many 6-number combinations are there in the lottery game 6/49?
  
- 9) Chris hangs his laundry on the clothesline. He has 4 shirts, 2 pairs of pants, and 3 t-shirts. How many different arrangements are possible?