Name: _____

Probability Review – Unit One

0. Draw a tree to show the different outcomes of flipping a coin and then rolling one 6-sided die.

1. Joe has 5 shirts, 6 trousers, 3 ties, and 4 sport coats. How many different arrangements can he wear?
2. How many different 4-letter radio station call letters can be made if the first letter must be a K ***or*** W and no letter may be repeated?
3. For many years the state of California used 3 letters followed by 3 digits on its automobile license plates. How many different license plates are possible with this arrangement?
4. A baseball team has 15 players. How many 9-player batting orders are possible
5. A student activity club at the college has 32 members. In how many different ways can the club select a president, a vice president, a treasurer, and a secretary?
6. A suitcase contains 6 distinct pairs of socks and 4 distinct pairs of pants. If a traveler randomly picks 2 pairs of socks and then 3 pairs of pants, how many ways can this be done?
7. A class has 10 male students and 12 female students. How many ways can the class select a committee of four people to petition the teacher not to make the final exam cumulative if the committee has to have exactly 2 males and 2 females?
8. A class has 10 male students and 12 female students. How many ways can the class select a committee of four people to petition the teacher not to make the final exam cumulative if the committee has to have ***at least*** 2 males?
9. Calculate the number of ways you can arrange the letters of the word: TWERK
10. Calculate the number of ways you can arrange the letters of the word: WEASEL
11. How many ways can you select a 4-digit pin number if the first digit cannot be a zero.

12. In a box, there are 5 black pens, 3 white pens and 4 red pens. In how many ways can 2 black pens, 2 white pens and 2 red pens can be chosen?
13. Write out the Sample Space for all two-digit numbers divisible by 5.
14. Create your OWN problem that could be solved with ${}_3C_2$
15. Create your OWN problem that could be solved with ${}_4P_3$