Chapter 4

PRACTICE TEST

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mr. Formaran

1. You have 5 pairs of shoes, 4 pants, and 8 clean t-shirts. How many combinations of outfits could you make?

5

4

8

= 160

2. At Subway, you can choose between 6 types of bread, 5 kinds of cheese, and 10 types of veggies. How many combinations of 1 bread, 1 cheese, and 1 veggies are there?

6

5

10

= 300

3. You’re making a playlist for a friend and want to include 5 songs. How many different combinations of playlists can you make?

5

4

3

2

1

= 120 or 5!

4. At a horse track, there are 8 horses racing. In how many different ways can they finish?

2

1

5

4

3

8

7

6

= 40,320 or 8!

5. You’ve got 6 chores to do, but only time to complete 4 of them. How many possible orderings of these 4 chores are possible?

6

5

4

3

= 360

6. You and your boo are having movie night. You have 7 movies and want to watch 3. How many different movie order combos there for your 3?

7

6

5

= 210

7. You’re making pizza and have mushrooms, olives, peppers, sausage, and basil. How many combinations of 2 ingredients are possible?

5C2 = 10

8. Ten people auditions for roles as extras in a movie, but only 3 spots are available. How many ways could these 3 spots be filled?

10C3 = 120

9. A person has 7 songs to choose from and will perform 3. How many different ways can they do this?

7

6

5

= 210

10. How many different 5-card hands can be formed containing at least 3 black cards?

26C3 x 26C2 =

26C4 x 26C1 =

26C5 x 26C0 =

1 299 480

11. In how many ways can the positions of president and vice-president be assigned from a group of 8 people?

8P2 = 56

12. In how many ways can a selection of 3 men and 2 women can be made from a group of 5 men and 5 women ?

5C3 x 5C2 = 100