Name _____ Date _____

Year Group _____

Permutations

1. ${}_5P_2 = \frac{\_\_\_\_!}{(\_\_\_\_ - \_\_\_\_)!} = \_\_\_\_$

2. ${}_{14}P_3 = \_\_\_\_$

3. ${}_4P_4 = \_\_\_\_$

4. There are 8 people in a meeting. Everyone is line up for a group photo. How many options are there?

$$Answer = \_\_\_\_$$

5. 15 students are applying for on 4 different field trips to the museum. How many options are there?

$$Answer = \_\_\_\_$$

6. There are 8 people in the competition. The top three receive a gold medal, silver medal, and a bronze medal. How many options are there?

$$Answer = \_\_\_\_$$

7. 4 people are needed to move a table to the other side of the room to give the room a more feng shui feel. There are 10 people that could help. The first person chosen will grab the north side while the second person chosen will grab the east side and so on. How many options are there?

$$Answer = \_\_\_\_$$

8. How different options are there to write the word square?

$$Answer = \_\_\_\_$$