

Name \_\_\_\_\_

Date \_\_\_\_\_

Number of Children in the Class	Possibilities	Number of Ways to Arrange the Seats	Factorial (Vroom!)
1	1	1	1!
2		2	2!
3	$1 \times 2 \times 3$		3!
4	$1 \times 2 \times 3 \times 4$	24	
5			5!
6	$1 \times 2 \times 3 \times 4 \times 5 \times 6$	720	
7		5,040	7!
8	$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8$		8!
9		362,880	9!
10	$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 \times 10$	3,628,800	
11			11!
12	$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 \times 10 \times 11 \times 12$	479,001,600	