

NAME

QUARTER

GRADE &amp; SECTION

DATE

**Activity: Permutation (Distinguishable & Circular)****I. PERMUTATIONS WITH REPETITION**

Find the number of distinguishable permutations of the letters in the word.

**1. TREE**Number of letters: Repeated letters:  = Total number of Permutations: **2. BELIEVE**Number of letters: Repeated letters:  = Total number of Permutations: **3. COMMUNICATE**Number of letters: Repeated letters:  =  and  = Total number of Permutations: **II. CIRCULAR PERMUTATIONS**

Find the number of permutations of objects in a circle.

1. Suppose you are seating 5 people at a circular table. How many different ways can you arrange the people around the table?

Set-up:  $(\text{ } - 1)!$ Total number of Permutations: 

2. Your mother wants to plant some shrubs around a circular walkway. She has ten different shrubs. How many different ways can the shrubs be planted?

Set-up:  $(\text{ } - 1)!$ Total number of Permutations: 

How many attempts? \_\_\_\_.  
How well did you do?



Need help!



Just OK!



Splendid

I FEEL THAT...