

NAME: _____ SCORE: _____



Objective:

Solve problems involving permutation and combinations



TASKS



Show all actual arrangements described in each situation.

| SITUATION | YOUR ACTUAL ARRANGEMENTS |
|--|--------------------------|
| Suppose you order a drink, a viand, and a type of rice for your lunch in a canteen. The drinks are Mango Shake, Buko Juice, Sago't Gulaman, and Barako Coffee. Meanwhile, the viands available are Kare-Kare, Lechon Kawali, and Bicol Express. Lastly, the types of rice available are Garlic Rice and Tinapa Rice. How many possible menu combinations can you create? | |
| In a city, there are 4 different jeepney routes that pass by your neighborhood. Each route has 5 different stops. If you can choose any route and get off at any stop, how many different ways can you travel to reach your destination? | |
| At a food festival, there are 3 stalls offering different local delicacies: ube halaya, bibingka, and leche flan. Each stall has 4 variations of toppings/sides. If you can choose one delicacy and one topping/side, how many unique combinations of delicacies and toppings/sides are possible? | |
| During a cultural event, there are 5 traditional Filipino dances being performed: Tinikling, Pandanggo sa Ilaw, Itik-Itik, Singkil, and Magalatik. If you want to watch 3 of these dances in a row, how many different sequences of dances can you watch? | |
| At a street market, there are 4 vendors selling different items: fresh fruits, native handicrafts, grilled seafood, and local delicacies. Each vendor offers 3 unique items. If you want to buy one item from each vendor, how many different combinations of items can you purchase? | |



Show the complete solution for each problem.

| PROBLEM | SOLUTION |
|--|----------|
| At a local bakery, there are 5 different types of bread available: pandesal, ensaymada, Spanish bread, loaf bread, and baguette. If you want to buy a mixed pack containing any 3 types of bread, how many different combinations of mixed packs can you purchase? | |
| You have 5 books on a shelf: Mathematics, Science, History, Literature, and Art. If you want to arrange these books in a specific order on the shelf, how many different arrangements are possible? | |