

Name: \_\_\_\_\_

## Finite Mathematics Activity 3

### The Generalized Multiplication Principle

1. Julius Caesar goes to Toga Tom's Tabouleh Shack for lunch. Toga Tom has a lunch special that sounds like a great deal to Julius: a choice of beverage, entree, salad, and dessert for 5 coins. If the menu is as follows, how many different lunch special combinations does Julius have to choose from?

Beverages	Entrees	Salads	Desserts
Tea	Falafel	Tabouleh	Baklava
Water	Gyro	Lebanese	Almond Cookies
Yogurt Shake	Shish kabob		Fresh Fruit
Lemonade			

2. Cindy Crawford is trying to pick out her outfit for a new Diet Pepsi commercial. She is going to put on one item from each of the following categories. How many different outfits can she make?

Bottoms	Tops	Socks	Shoes
Jeans	Tank Top	Fishnets	High Heels
Khakis	Turtleneck	Knee socks	Sneakers
Skirt	Blouse	Tube Socks	Penny Loafers
Shorts	T-shirt	Nylons	Saddle Shoes
Capris	Sweater		Doc Martens
			Birkenstocks

3. The South Bend Symphony Orchestra would like to play a concert using some of the pieces they have prepared. They have prepared 5 pieces by Beethoven, 4 pieces by Mozart, and 3 pieces by Handel. They will play a concert of 5 pieces, by composers in this order:

1. Beethoven
2. Mozart
3. Handel
4. Beethoven
5. Mozart

How many different such concerts could the symphony play using the music they prepared?