

Lunch Options

The Hot Entrée Combo in the cafeteria includes your choice of an entrée with 1 side and a drink for \$6.50. Today's selections are shown below.

Entrée	Sides	Drinks
<ul style="list-style-type: none">• Baked ziti with meat• Baked ziti with veggies	<ul style="list-style-type: none">• Steamed broccoli• Caesar salad• Garlic breadsticks• Chicken soup	<ul style="list-style-type: none">• Milk• Water• Apple juice

1. How many different lunch combinations are there? Explain how you figured it out and how you know you have them all.
2. Suppose the combo also included a choice of 2 desserts: a peanut butter cookie or a chocolate brownie. How many different lunch combinations would there be then? How do you know?
3. Compare your answers to the first two questions. How are they different? Explain.
4. How many different combinations do you think you will have if you now add a choice of a peppermint or spearmint candy to your combo? Explain.
5. Panera Bread™ offers You Pick Two™, which includes a choice of 2 half portions from the following list: soup, macaroni, salad, and sandwich. You decide to have soup and a sandwich. There are 7 different soups and 19 different sandwiches. In addition, you can select a side of an apple, chips, or a baguette. Drawing on your work on the first four questions, determine how many different combinations you could put together.