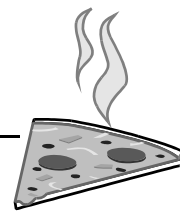# Pizza Toppings

Your local pizza shop sells pizzas with any combination of 14 toppings. For instance, you might order a pizza with onions, broccoli, olives, sausage, and pineapple. This ghastly combination would cost $\$6.00 + 5 \cdot \$0.75 = \$9.75$.

1. A pizza shop employee takes an order for a $7.50 pizza, but neglects to write down which toppings were selected. How many different combinations of toppings are possible for a pizza costing $7.50?

PIZZARAMA

Delivery Menu

Large pizza pie	$6.00
Each added topping	$0.75

14 Great Toppings:

extra cheese	olives
mushrooms	pepperoni
green peppers	sausage
onions	ham
broccoli	prosciutto
sliced tomato	chicken
eggplant	pineapple

2. You and a group of hungry friends call in an order for "one large pizza for each of the possible combinations of toppings." How many pizzas have you just ordered?

3. Explain how you would figure out the total bill for your order. (Don't forget the tip!)

4. Assuming you could pay the bill, about how long would it take for you and all the students of your high school to consume the pizzas, if everyone ate pizza for lunch every school day? Explain how you arrive at your estimate.

5. Sketch a graph of the temperature of a slice of pizza, from the moment it enters the oven, through baking and delivery, until you end up with a cold slice of pizza (assume that you don't eat it before then).