

Please finish these questions during class. (**This will not be graded, no points will be awarded.** However, these questions will be candidates for the final)

## Do You Want to Build a Snowman?

Anna said: "Hang in there Jones!" when she looked at the paintings in the ball room. Actually, there were 5 different paintings and 3 different statues around the room.

1. How many different ways can the room be decorated?
2. If all paintings can only be on the west side of the room and all statues can only be on the east side of the room. How many different ways can the room be decorated?

## Club Meeting

Premier Pizza sells 3 different sizes of pizzas, small, medium and large. There are 4 different cheeses (American, pepper jack, cheddar, aged cheddar), 3 different meat products (sausages, pepperoni, ham) and 4 different fresh herbs/veggies (basil, parsley, garlic, onion). Prices for (one cheese, one meat, one herb, this is the 1-1-1 pizzas) are \$12 for size small, \$16 for size medium and \$20 for size large.

1. How many different kinds of pizzas for each size can there be, if you are allowed to choose one cheese, one meat, and one herb?
2. You are responsible to arrange for your club's final meeting. You decide to get two large pizzas for the meeting. If no toppings can be repeated for any of the two 1-1-1 pizzas, how many different ways can you order?
3. Now, if your budget for the pizzas is \$40. You decide to buy 1-1-1 pizzas. How many different ways to order the pizzas if no toppings can be repeated for any pizzas, **and** you have to order as many pizzas as your budget allows you?