1. (5 points) Your backpack contains a marker, a pencil, and an eraser. Suppose that you reach your hand into the bag and (uniformly at random) pick one of the three out of the bag. Use the letter M to denote picking the marker, C to denote picking the pencil, and E to denote picking the eraser.

1. Write down a sample space \( \Omega \) to describe this situation.
2. Using the notation above, what is the event that you pick either the pencil or the eraser?
3. What is the probability that you pick either the pencil or the eraser?

2. (5 points) Let S denote the set of salads, V denote the set of dishes that include vegetables, and M denote the set of dishes that include meat. Translate the following sets into words. (For example, \( S \cap V \) is the set of salad dishes that include vegetables.)

1. \( (S^c \cap V) \cup (S \cap M) \).
2. \( (S \cup V) \cap M^c \).