1. There are 50 people in a room. Twenty-eight are male, and 32 are under the age of 30. Twelve are males under the age of 30. How many women over the age of 30 are in the group? (A) 2 (B) 3 (C) 4 (D) 5 (E) 6

1. M & M plain candies come in six colors: brown, green, orange, red, tan, and yellow. Assume there are at least 3 of each color. If you pick three candies from a bag, how many color possibilities are there? (A) 18 (B) 20 (C) 120 (D) 216 (E) 729

2. A code consists of two letters of the alphabet followed by 5 digits. How many such codes are possible? (A) 7 (B) 10 (C) 128 (D) 20,000 (E) 67,600,000

3. A salad bar has 7 ingredients, excluding the dressing. How many different salads are possible where two salads are different if they don’t include identical ingredients? (A) 7 (B) 14 (C) 128 (D) 5,040 (E) 823,543

1. How many 3-person committees can be selected from a fraternity with 25 members? (A) 15,625 (B) 13,800 (C) 2,300 (D) 75 (E) 8

2. A basketball team has 5 centers, 9 guards, and 13 forwards. Of these, 1 center, 2 guards, and 2 forwards start a game. How many possible starting teams can a coach put on the floor? (A) 56,160 (B) 14,040 (C) 585 (D) 197 (E) 27

3. Five boys and 6 girls would like to serve on the homecoming court, which will consist of 2 boys and 2 girls. How many different homecoming courts are possible? (A) 30 (B) 61 (C) 150 (D) 900 (E) 2048

4. In a plane there are 8 points, no three of which are collinear. How many lines do the points determine? (A) 7 (B) 16 (C) 28 (D) 36 (E) 64

5. If , then x = (A) 0 (B) 1 (C) 4 (D) 5 (E) 10