>> COMBINATIONS PROBLEMS

1. The number of triangles that can be drawn from 9 points without three collinear points is……..
2. A group of students that consist of 8 boys and 6 girls are chosen 3 boys and 3 girls. The number of election ways is……
3. The number of straight lines that can be drawn through 12 non collinear points is…….
4. A basketball team is chosen from 10 men. Find the number of ways to choose!
5. A volleyball team is chosen from 12 men. Find the number of ways to chose if a captain of team is always the same man!

>> PROBLEMS SOLVING

1. Answer : $C_3^9 = \frac{9!}{3!6!} = \frac{9.8.7}{3.2.1} = 84$

2. Answer : $C_3^8 . C_3^6 = \frac{8!}{3!5!} . \frac{6!}{3!3!} = \frac{8.7.6}{3.2.1} . \frac{6.5.4}{3.2.1} = 56 . 20 = 1120$

3. Answer : $C_2^{12} = \frac{12!}{2!10!} = \frac{12.11}{2.1} = 66$

4. Answer : $C_5^{10} = \frac{10!}{5!5!} = \frac{10.9.8.7.6}{5.4.3.2.1} = 252$

5. Answer : $C_5^{11} = \frac{11!}{5!6!} = \frac{11.10.9.8.7}{5.4.3.2.1} = 462$