

Answer on Question #57587 – Math – Combinatorics | Number Theory

Question

There are 15 boys and 10 girls in your class. A four member committee is to be formed from the students of your class. In how many ways this can be done if the committee consists at least three girls?

Solution

$$C_{15}^1 \cdot C_{10}^3 + C_{15}^0 \cdot C_{10}^4 = \frac{15!}{14!} \cdot \frac{10!}{3!7!} + \frac{15!}{15!} \cdot \frac{10!}{4!6!} = 2010.$$

Answer: 2010.