

## **Answer on question #85652 – Math– Discrete Mathematics**

### **Question**

In how many ways can one select 7 member committee from 10 distinct persons if only three persons qualify to be chairperson?

### **Solution**

One chairperson can be elected from three candidates in three ways. We have to choose 6 from the rest of 9 people. It can be done  $C_9^6 = C_9^{9-6} = C_9^3 = \frac{9 \cdot 8 \cdot 7}{1 \cdot 2 \cdot 3} = 3 \cdot 4 \cdot 7 = 84$ . Taking three opportunities of the choice of the chairperson into account, we have  $3 \cdot 84 = 252$  ways.