

Solutions to practice problems for Counting

Problem 1. $5 \times 4 = 20$.

Problem 2. $3 \times 5 \times 7 \times 2 = 210$.

Problem 3. Permutation of 9 distinct objects taken 2 at a time: $\frac{9!}{(9-2)!} = \frac{9!}{7!} = 72$.

Problem 4. $4! \times 5! = 2880$.

Problem 5. Combination of 8 objects taken 3 at a time: $C_3^8 = \frac{8!}{3!5!} = 56$.