

Permutation and combination questions with answers

15 exam-shaped questions with full worked solutions.

For IBPS · SBI · SSC · Railway quant.

Free, share it forward. Every question in this set was generated and verified by the ComputePrep engine — the same one behind the free daily timed drill at **computeprep.com**.

The questions

Work them on paper first. Full solutions start after question 15 — the numbering matches.

QUESTION 1

In how many different ways can they be arranged?

5 students are to stand in a single row for a photograph.

- A. 120
 - B. 126
 - C. 24
 - D. 25
 - E. 20
-

QUESTION 2

In how many ways can it be done?

A committee of 2 members is to be formed from 8 people.

- A. 56
 - B. 28
 - C. 16
 - D. 58
 - E. 21
-

QUESTION 3

How many distinct arrangements are there?

Consider all arrangements of the letters of the word "GREEN".

- A. 30
 - B. 61
 - C. 120
 - D. 60
 - E. 24
-

QUESTION 4

How many distinct arrangements are there?

Consider all arrangements of the letters of the word "PLANET".

- A. 733
 - B. 726
 - C. 36
 - D. 120
 - E. 720
-

QUESTION 5**How many distinct arrangements are there?**

Consider all arrangements of the letters of the word "FRIEND".

- A. 722
 - B. 120
 - C. 724
 - D. 732
 - E. 720
-

QUESTION 6**In how many ways can the team be chosen?**

A team of 2 men and 3 women is to be chosen from 4 men and 4 women.

- A. 10
 - B. 34
 - C. 288
 - D. 56
 - E. 24
-

QUESTION 7**In how many ways can it be done?**

A committee of 2 members is to be formed from 6 people.

- A. 55
 - B. 15
 - C. 12
 - D. 30
 - E. 21
-

QUESTION 8**In how many different ways can they be arranged?**

4 students are to stand in a single row for a photograph.

- A. 8
 - B. 6
 - C. 12
 - D. 24
 - E. 16
-

QUESTION 9**In how many ways can the medals be won?**

8 athletes run a race. Gold, silver and bronze medals are awarded.

- A. 512
 - B. 56
 - C. 336
 - D. 348
 - E. 24
-

QUESTION 10**How many distinct arrangements are there?**

Consider all arrangements of the letters of the word "GREEN".

- A. 30
 - B. 60
 - C. 20
 - D. 24
 - E. 120
-

QUESTION 11**How many distinct arrangements are there?**

Consider all arrangements of the letters of the word "SUMMER".

- A. 366
 - B. 720
 - C. 360
 - D. 373
 - E. 120
-

QUESTION 12**In how many ways can the medals be won?**

7 athletes run a race. Gold, silver and bronze medals are awarded.

- A. 35
 - B. 210
 - C. 21
 - D. 42
 - E. 180
-

QUESTION 13**In how many ways can it be done?**

A committee of 3 members is to be formed from 6 people.

- A. 20
 - B. 10
 - C. 120
 - D. 22
 - E. 18
-

QUESTION 14**In how many ways can it be done?**

A committee of 2 members is to be formed from 6 people.

- A. 29
 - B. 15
 - C. 35
 - D. 27
 - E. 30
-

QUESTION 15

How many distinct arrangements are there?

Consider all arrangements of the letters of the word "GARDEN".

- A. 36
 - B. 120
 - C. 721
 - D. 30
 - E. 720
-

Answers and worked solutions

Each walkthrough is the engine's own elimination order, step for step — not a reconstruction written after the fact.

SOLUTION 1

Answer: **120**

1. Each position is filled in turn: 5 choices, then 4, and so on down to 1.
 2. Arrangements = $5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$.
 3. Answer: 120.
-

SOLUTION 2

Answer: **28**

1. A committee has no order — SELECTIONS, so use nCr , not nPr .
 2. $8C2 = 8P2 \div 2! = 56 \div 2 = 28$.
 3. Answer: 28.
-

SOLUTION 3

Answer: **60**

1. "GREEN" has 5 letters with one letter repeated twice — divide by $2!$ for the repeat.
 2. Arrangements = $5! \div 2! = 120 \div 2 = 60$.
 3. Answer: 60.
-

SOLUTION 4

Answer: **720**

1. All 6 letters of "PLANET" are different, so every ordering is distinct.
 2. Arrangements = $6! = 720$.
 3. Answer: 720.
-

SOLUTION 5

Answer: **720**

1. All 6 letters of "FRIEND" are different, so every ordering is distinct.
 2. Arrangements = $6! = 720$.
 3. Answer: 720.
-

SOLUTION 6

Answer: **24**

1. Choose each group separately, then MULTIPLY (both choices happen together).
 2. $4C2 \times 4C3 = 6 \times 4 = 24$.
 3. Answer: 24.
-

SOLUTION 7

Answer: **15**

1. A committee has no order — SELECTIONS, so use nCr , not nPr .
2. $6C2 = 6P2 \div 2! = 30 \div 2 = 15$.
3. Answer: 15.

SOLUTION 8

Answer: **24**

1. Each position is filled in turn: 4 choices, then 3, and so on down to 1.
 2. Arrangements = $4! = 4 \times 3 \times 2 \times 1 = 24$.
 3. Answer: 24.
-

SOLUTION 9

Answer: **336**

1. The three medals are DIFFERENT, so order matters — use nPr, not nCr.
 2. $8P3 = 8 \times 7 \times 6 = 336$.
 3. Answer: 336.
-

SOLUTION 10

Answer: **60**

1. "GREEN" has 5 letters with one letter repeated twice — divide by $2!$ for the repeat.
 2. Arrangements = $5! \div 2! = 120 \div 2 = 60$.
 3. Answer: 60.
-

SOLUTION 11

Answer: **360**

1. "SUMMER" has 6 letters with one letter repeated twice — divide by $2!$ for the repeat.
 2. Arrangements = $6! \div 2! = 720 \div 2 = 360$.
 3. Answer: 360.
-

SOLUTION 12

Answer: **210**

1. The three medals are DIFFERENT, so order matters — use nPr, not nCr.
 2. $7P3 = 7 \times 6 \times 5 = 210$.
 3. Answer: 210.
-

SOLUTION 13

Answer: **20**

1. A committee has no order — SELECTIONS, so use nCr, not nPr.
 2. $6C3 = 6P3 \div 3! = 120 \div 6 = 20$.
 3. Answer: 20.
-

SOLUTION 14

Answer: **15**

1. A committee has no order — SELECTIONS, so use nCr, not nPr.
 2. $6C2 = 6P2 \div 2! = 30 \div 2 = 15$.
 3. Answer: 15.
-

SOLUTION 15

Answer: **720**

1. All 6 letters of "GARDEN" are different, so every ordering is distinct.
 2. Arrangements = $6! = 720$.
 3. Answer: 720.
-

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