

OLYMPIAD · MENTAL ABILITY · OLYMPIAD PREPARATION · SHORT NOTES

Chapter 5: Blood Relations

Topic-wise short notes with solved examples

The names of family relations, how to read a relation puzzle step by step, and how to draw a simple family tree.

1 Know the relations

Person	Relation to you
Father's or mother's father	Grandfather
Father's or mother's mother	Grandmother
Father's or mother's brother	Uncle
Father's or mother's sister	Aunt
Uncle's or aunt's son or daughter	Cousin
Brother's or sister's son	Nephew
Brother's or sister's daughter	Niece
Spouse's father	Father-in-law
Spouse's mother	Mother-in-law
Spouse's brother or sister's husband	Brother-in-law
Same parents as you, male	Brother
Same parents as you, female	Sister

- A **generation** is one step up or down the family: grandparents, parents, you, your children.
- **Siblings** are brothers and sisters. They are in the same generation.
- If a name does not say whether the person is male or female, do not assume. Many puzzles can be solved without it.

2 Solving a relation puzzle

- Work **backwards** through the sentence, one small piece at a time, and replace each piece by a simple relation.
- "My father's only son" is **me** (if I am a boy) or **my brother**. "My mother's only daughter" is me (if I am a girl) or my sister.
- Draw dots for the people. Join husband and wife with a horizontal line and draw children below them.

Example 2.1 Pointing to a boy, Anil says, "He is the son of my father's only son." How is the boy related to Anil?

SOLUTION

"My father's only son" is Anil himself (Anil is a boy because he is the only son).

The boy is the son of Anil.

Son

Example 2.2 Pointing to a woman, Ravi says, "She is the daughter of my father's mother's only son." How is the woman related to Ravi?

SOLUTION

My father's mother's only son is Ravi's father.

So the woman is the daughter of Ravi's father.

Sister

Example 2.3 A is B's sister. C is B's mother. D is C's father. E is D's mother. How is A related to D?

SOLUTION

C is B's mother, and A and B are brother and sister, so C is the mother of A too.

D is C's father, so D is the grandfather of A.

A is the granddaughter of D.

3 Counting members

- Add up each distinct person once. Husband and wife are two persons; each child is one person.

Example 3.1 A family has a grandfather, a grandmother, a father, a mother, two sons and one daughter. How many members are there?

SOLUTION

$$2 + 2 + 3 = 7.$$

7 members

REMEMBER

After each step, write the relation you have found on the page. Never carry two unfinished relations in your head at the same time.