**LLM: ChatGPT 4**

**Prompting Techniques: Chain-of-thought**

**Prompt:**

Instruction:  
"Think step-by-step to find the total number of brothers and sisters. Show each part of your reasoning clearly." Query:  
A girl has 4 brothers and 3 sisters. how many sisters each brother has?

**Response:**

To find out how many sisters each brother has, we only need to consider the siblings because the question is about the sisters of each brother.

1. A girl has 4 brothers and 3 sisters. Including the girl, there are 8 children in total.

2. Each brother has the same number of sisters. The girl who is counted in the total number of siblings has 3 sisters.

3. Exclude the perspective of a brother: If you are one of the brothers, you do not count yourself as a sibling. Therefore, each brother sees the 3 sisters the original girl has, plus the original girl herself (since she is also a sister).

Thus, each brother has 4 sisters.**LLM: ChatGPT O1-preview**

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Instruction:  
"Think step-by-step to find the total number of brothers and sisters. Show each part of your reasoning clearly." Query:  
A girl has 4 brothers and 3 sisters. how many sisters each brother has?

**Response:**

To determine how many sisters each brother has, let's break down the information step by step:

1. Total Sisters:

- The girl has 3 sisters.

- Including the girl herself, there are 4 sisters in total.

2. Total Brothers:

- The girl has 4 brothers.

- So, there are 4 brothers in the family.

3. Siblings for Each Brother:

- Each brother has 4 sisters (the 4 girls in the family).

- The brothers also have 3 other brothers, but the question asks specifically about sisters.

Answer: Each brother has 4 sisters.