

Diagram illustrating a search tree for a 3x3x3 Rubik's cube, showing the sequence of moves and the resulting cube states. The root node is labeled "ROOT -1 -4 -6 5 -3 2". The tree branches out into three main paths, each leading to a specific cube state and a sequence of moves.

Left Path:

- Root: ROOT -1 -4 -6 5 -3 2
- Branch 1: -1 -4 -6 -5 -3 2 (Moves: 5, -6)
- Branch 2: 3 -5 6 4 1 2 (Moves: 2, -1)
- Branch 3: -1 -4 -6 5 -3 -2 (Moves: 2, -3)

Middle Path:

- Root: -1 6 -5 -4 -3 2
- Branch 1: -1 6 -5 -4 -3 2 (Moves: 6, -5)
- Branch 2: 3 4 5 -6 1 2 (Moves: 2, -1)
- Branch 3: -1 6 -5 -4 -3 -2 (Moves: 2, -3)

Right Path:

- Root: 3 -5 -4 -6 1 2
- Branch 1: 3 -5 -4 -6 1 2 (Moves: 3, -4)
- Branch 2: -1 6 4 5 -3 -2 (Moves: 4, -3)

The diagram continues with further branching, showing the sequence of moves and the resulting cube states. The final nodes are labeled with their respective cube states and the number of moves required to solve them.