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# Initial values of Alpha and Beta
MAX, MIN = 1000, -1000

# Returns optimal value for current player
#(Initially called for root and maximizer)
def minimax(depth, nodeIndex, maximizingPlayer, values, alpha, beta):

    # Terminating condition. i.e
    # leaf node is reached
    if depth == 3:
        return values[nodeIndex]

    if maximizingPlayer:
        best = MIN

        # Recur for left and right children
        for i in range(0, 2):
            val = minimax(depth + 1, nodeIndex * 2 + i, False, values, alpha, beta)

            best = max(best, val)

            alpha = max(alpha, best)

            # Alpha Beta Pruning
            if beta <= alpha:
                break

        return best
    else:
        best = MAX

        # Recur for left and
        # right children
        for i in range(0, 2):
            val = minimax(depth + 1, nodeIndex * 2 + i, True, values, alpha, beta)

            best = min(best, val)

            beta = min(beta, best)

            # Alpha Beta Pruning
            if beta <= alpha:
                break

```

```
return best
```

```
if __name__ == "__main__":
```

```
    values = [4, 2, 6, 19, 1, -2, 3, -1]
```

```
    print("The optimal value is :", minimax(0, 0, True, values, MIN, MAX))
```