

MIN MAX ALGORITHM

PROGRAM:

```
import math

def minimax(curDepth, nodeIndex, maxTurn, scores, targetDepth):
    if curDepth == targetDepth:
        return scores[nodeIndex]
    if maxTurn:
        return max(minimax(curDepth + 1, nodeIndex * 2, False, scores, targetDepth),
                    minimax(curDepth + 1, nodeIndex * 2 + 1, False, scores, targetDepth))
    else:
        return min(minimax(curDepth + 1, nodeIndex * 2, True, scores, targetDepth),
                    minimax(curDepth + 1, nodeIndex * 2 + 1, True, scores, targetDepth))

scores = [3, 5, 2, 9, 12, 5, 23, 23]
treeDepth = math.log(len(scores), 2)
print("The optimal value is:", end=" ")
print(minimax(0, 0, True, scores, treeDepth))
```

OUTPUT:

```
The optimal value is: 12
```
