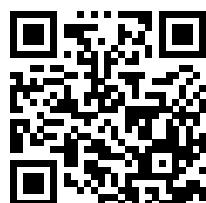




## **SoulShift - Educational Q&A Platform**

### **General Questions**

Practice Questions



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**Q1. What is the worst-case time complexity of binary search?**

- A.  $O(n)$
- B.  $O(\log n)$
- C.  $O(n \log n)$
- D.  $O(1)$

*Solution: In the worst case, binary search still operates in  $O(\log n)$  time complexity.*

**Q2. If a binary search is performed on an array of size 16, how many comparisons are needed in the worst case?**

- A. 4
- B. 5
- C. 6
- D. 7

*Solution: The maximum number of comparisons needed is  $\log_2(16) = 4$ , but since we start counting from 0, it takes 5 comparisons.*



