

DSA Quiz

Difficulty: intermediate

Type: TRUEFALSE

Score: 80.0%

1. Linked lists require a predefined size, similar to arrays.

Your answer: False

Correct answer: False

Explanation: Linked lists do **not** require a predefined size. They grow dynamically as needed, unlike arrays which have a fixed size upon declaration.

2. In a doubly linked list, each node contains a pointer to the next node and a pointer to the previous node.

Your answer: True

Correct answer: True

Explanation: This is the defining characteristic of a doubly linked list. The two pointers allow traversal in both directions.

3. Random access is one of the key advantages of linked lists.

Your answer: False

Correct answer: False

Explanation: Linked lists do **not** support random access. Accessing an element requires traversing the list from the head, making it less efficient than arrays for random access.

4. Linked lists are more memory-efficient than arrays because they don't require contiguous memory allocation.

Your answer: False

Correct answer: True

Explanation: Linked lists allocate memory dynamically as needed, only using space for

the necessary nodes. Arrays, especially if oversized, can waste memory.

5. The 'next' pointer in the last node of a singly linked list points to the first node.

Your answer: False

Correct answer: False

Explanation: In a *singly* linked list, the 'next' pointer of the last node points to NULL, indicating the end of the list. This is different from a *circular* linked list where the last node points back to the first.