



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

### **General Questions**

Practice Questions



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**Q1. What is the main difference between Dijkstra's algorithm and A\* search algorithm?**

- A. A\* uses heuristics to improve efficiency
- B. Dijkstra's algorithm is faster
- C. A\* can only be used on trees
- D. Dijkstra's algorithm is for unweighted graphs

*Solution: The main difference is that A\* uses heuristics to guide its search, making it more efficient in many cases compared to Dijkstra's algorithm.*

**Q2. If a graph has 5 vertices and 10 edges, what is the maximum number of edges it can have?**

- A. 5
- B. 10
- C. 20
- D. 25

*Solution: In a simple undirected graph, the maximum number of edges is given by the formula  $V(V-1)/2$ , which for 5 vertices is  $5(5-1)/2 = 10$ .*



