

Analysis of Algorithms

Homework 4

Abraham Murciano

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1 Dijkstra's Algorithm with negative weights

Part A

Figure 1 shows a graph with negative weights such that if we apply Dijkstra's algorithm to find the shortest path between vertices S and D , it will return the wrong path.

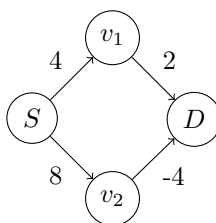


Figure 1: Graph for which Dijkstra doesn't work