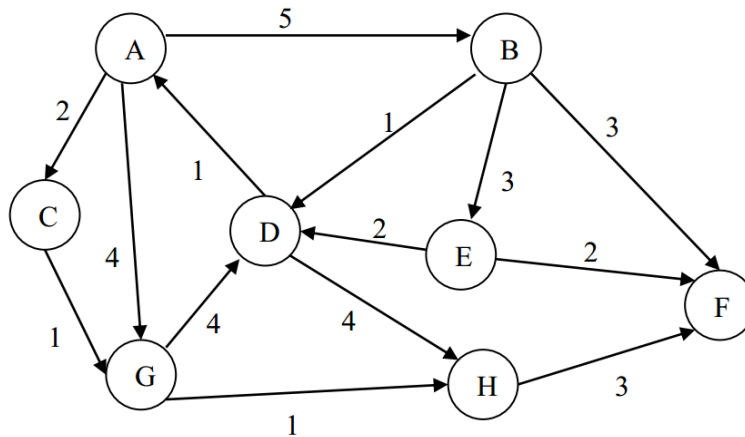


Dijkstra's

Use Dijkstra's Algorithm to evaluate the shortest path from A to any other node in the graph below.



Order vertices marked as known: **A C G H B D F E**

Vertex	Known?	Cost	Path
A	Y	0	-
B	Y	5	A
C	Y	2	A
D	Y	7 6	G B
E	Y	8	B
F	Y	7	H
G	Y	4 3	A C
H	Y	4	G

Runtimes:

Prim's: $O(|E| \log |V|)$

Kruskal's: $O(|E| \log |E|)$
 $O(|E|)$

*sorting

*iterating through edges for union-find

Dijkstra's: $O(|E| \log |V|)$