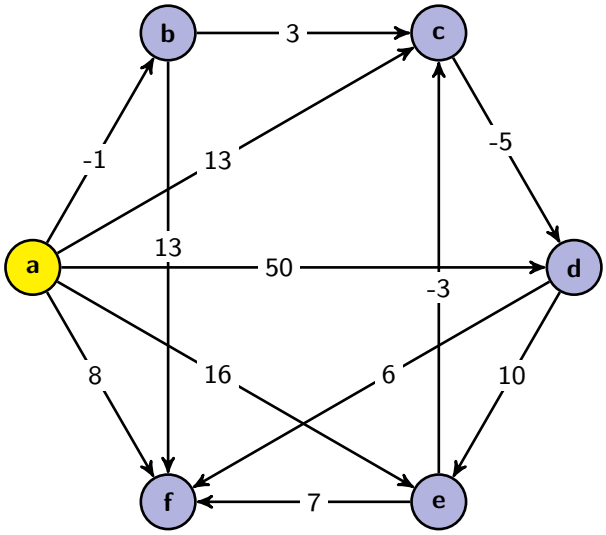
CSE 332: Data Structures and Parallelism

QuickCheck: Dijkstra's Algorithm Solutions

0. Velociraptors

Consider the following graph:



Suppose that you are at **a** and you are planning your escape from a bunch of hungry velociraptors (edge weights represent the expected number of velociraptors you will meet on this path, normalized). Run Dijkstra's Algorithm to find the **lengths** of the shortest paths (fewest number of velociraptors met) from **a** to each of the other vertices. You should show the state of your worklist at each step.

Solution

Vertex	Init	a	b	c	d	e	f
a	0	✓					
b	∞	-1	✓				
c	∞	13	2	✓			
d	∞	50		-3	✓		
e	∞	16			7	✓	
f	∞	8			3		✓

Order added to known set: `a, b, c, d, f, e`