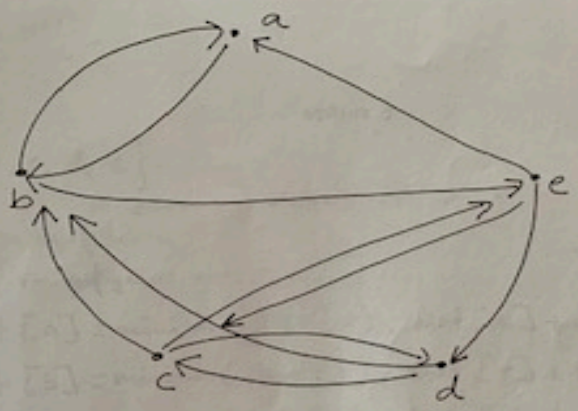

	a	b	c	d	e	
a	-	1	∞	∞	∞	
b	2	-	∞	∞	3	
c	∞	1	-	2	1	
d	∞	3	1	-	∞	
e	6	∞	3	1	-	

Aplicació Dijkstra, $\boxed{v = e}$

Vértex inicial

Iteració inicial

$T = \{\emptyset\}$ Conjunt buit

dist = | ∞ | ∞ | ∞ | ∞ | ∞ | inicialització
a b c d e

dist[e] = 0; → | ∞ | ∞ | ∞ | ∞ | 0 | punt de partida = (e)
a b c d e

Primera Iteració

$T = \{\emptyset\}$

$V = \{a, b, c, d, e\}$ ← mentre $T \neq V$

$v = e$; ← agafo min

$T = \{e\}$ ← afegeixo min a T

$dist[a] = mínim\ (dist[a],\ dist[e] + cost(e,a))$

$dist[b] = mínim\ (dist[b],\ dist[e] + cost(e,b))$

$dist[c] = mínim\ (dist[c],\ dist[e] + cost(e,c))$

$dist[d] = mínim\ (dist[d],\ dist[e] + cost(e,d))$

$dist[a] = mínim\ (\infty,\ 0 + 6) \Rightarrow dist[a] = 6$

$dist[b] = mínim\ (\infty,\ 0 + \infty) \Rightarrow dist[b] = \infty$

$dist[c] = mínim\ (\infty,\ 0 + 3) \Rightarrow dist[c] = 3$

$dist[d] = mínim\ (\infty,\ 0 + 1) \Rightarrow dist[d] = 1$

$dist =$

6	∞	3	1	0
a	b	c	d	e

Segona Iteració

$T = \{e\}$

$V = \{a, b, c, d, e\}$

→ $v = d$ ←

$T = \{e, d\}$

$dist[a] = \min(dist[a],\ dist[d] + cost(d,a))$

$dist[b] = \min(dist[b],\ dist[d] + cost(d,b))$

$dist[c] = \min(dist[c],\ dist[d] + cost(d,c))$

$(d \in T)$

$dist[a] = \min(6,\ 1 + \infty) = 6$

$dist[b] = \min(\infty,\ 1 + 3) = 4$

Tercera Iteració

$T = \{e, d\}$

$U = \{a, b, c, d, e\}$

→ $u = c$ ←

$T = \{e, d, c\}$

$dist[a] = \min(dist[a], dist[c] + cost(c,a))$

$dist[b] = \min(dist[b], dist[c] + cost(c,b))$

$(d, c, e \in T)$

$dist[a] = \min(6, 2 + \infty) = 6$

$dist[b] = \min(4, 2 + 1) = 3$

dist =

a	b	c	d	e
6	3	2	1	0

Quarta iteració

$T = \{e, d, c\}$

$U = \{a, b, c, d, e\}$

→ $u = b$ ←

$T = \{e, d, c, b\}$

$dist[a] = \min(dist[a], dist[b] + cost(b,a))$

$(b, c, d, e \in T)$

$dist[a] = \min(6, 3 + 2) = 5$

dist =

a	b	c	d	e
5	3	2	1	0

Cinquena iteració

$T = \{e, d, c, b\}$

$U = \{a, b, c, d, e\}$

$u = a$

$T = \{c, d, c, b, a\}$

Ja hem acabat ($T = V$)

(camins mínims)

e - d : ed

e - c : e - d - c

e - b : e - d - c - b

e - a : e - d - c - b - a