



## Dijkstra's algorithm

Start vertex is S

$S(-, 0)$        $a(s, 10)$        $b(-, \infty)$        $\boxed{c(s, 5)}$        $d(-, \infty)$

$c(s, 5)$        $a(c, 8)$        $b(c, 14)$        $\boxed{d(c, 7)}$

$d(c, 7)$        $\boxed{a(d, 8)}$        $b(d, 13)$

$a(d, 8)$        $\boxed{b(a, 9)}$

$b(a, 9)$

S to a =  $s \rightarrow c \rightarrow d \rightarrow a = 8$

S to b =  $s \rightarrow c \rightarrow d \rightarrow a \rightarrow b = 9$

S to c =  $s \rightarrow c = 5$

S to d =  $s \rightarrow c \rightarrow d = 7$