PRIMS

PRIM(G,S): PRIORITY QUEUE $\in O((V+E)\log V)$ UNORDERED ARRAY $\in O(V^2)$

```
for ∀v ∈ V                          ┐
    key[v] = ∞                      │ V, V
    π[v] = ∅                        │
rof                                 │
key[s] = 0                          ┘
```

edge weight

```
PQ = MinQ(keys)                     V, V

while not EMPTY?(PQ):
    x = POP(PQ)                     -V log V, V²
    for ∀v ∈ Adj(G,x)
        if key[v] > wt[x,v]
            key[v] = wt(x,v)        -E log V, E
            π[v] = x
        fi
    rof
elihw
end
```

- NEEDS STARTING POINT, THEN GETS SMALLEST EDGE

RESULTING MST: STARTING AT A