

FLOYD WARSHAW

FLOYD WARSHAW ($G(V, E)$): $\in O(V^3)$

```
n = |V|
for i = 1 to n: -V
  for j = 1 to n: -V^2
    if (i, j) ∈ E:
      d[i, j] = wt(i, j)
      π[i, j] = i
    else
      d[i, j] = ∞
      π[i, j] = ∅
    fi
  end
end
for k = 1 to n: -V
  for i = 1 to n: -V^2
    for j = 1 to n: -V^3
      if d[i, j] > d[i, k] + d[k, j]:
        d[i, j] = d[i, k] + d[k, j]
        π[i, j] = π[k, j]
      fi
    end
  end
end
```

- DOES NOT WORK ON NEGATIVE CYCLES
 - ↳ IF YOU COULD WALK IN A CIRCLE AND GET YOUNGER - YOU'D DO IT FOREVER
- GETS SHORTEST PATHS