

$$x \geq y \quad 1$$

$$\begin{array}{r} x \quad y \\ 2 \quad 5 \\ \hline 2 \quad 2 \end{array} \quad \left\lceil \frac{y+1}{x} \right\rceil$$

1       $b_i$        $4$

$$c_1 \rightarrow c_2 \rightarrow c_2 \geq c_1$$

$$2 \rightarrow 5$$

$$5 - 2 = b_5 - b_2$$

DP

$$b \rightarrow 4 \cdot 10^5$$

$$c_j - c_i = b_j - b_i$$

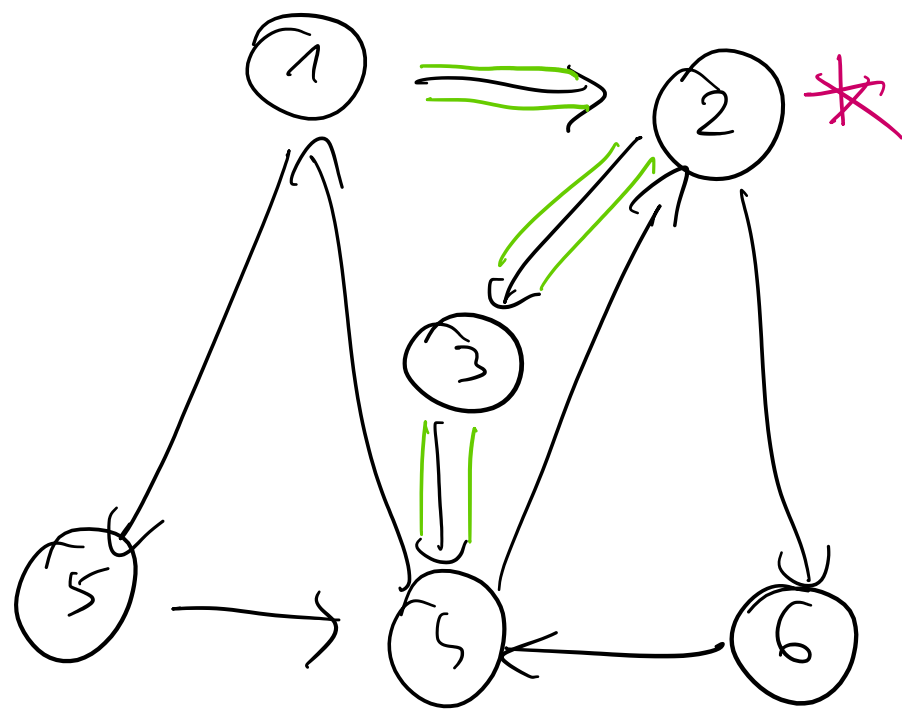
$$\underline{c_j - b_j} = \underline{c_i - b_i}$$

b a c a b c a b

b c d a

b d c a

greedy, alphabetically!



$$s \rightarrow t$$

min: we always try to pick path along the route

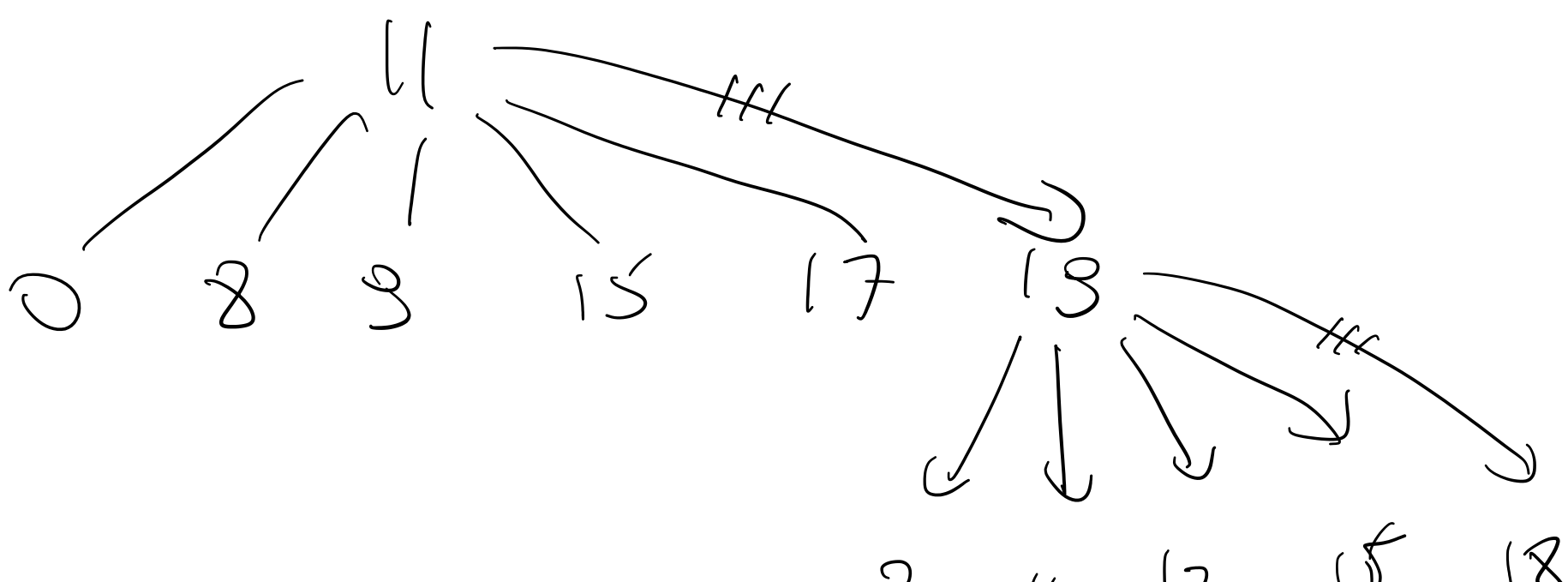
max: NOT along

\* places where there are alternative equally long routes

reverse graph

Dijkstra for all paths from target

$$11 \rightarrow 13$$



0? :(

18

13

11

1-10, 12-17, 0?

$n$

weapons

$m$

armor

attack  $a_i$        $b_j$  defense  
worth  $c_{a_i}$        $c_{b_j}$  worth

$p$  monsters

defense  $x_k$

attack  $y_k$

coins  $z_k$

win iff  $a_i \geq x_k$  &  $b_j \geq y_k$

max. profit

$$\text{profit} = \text{coins won} - \text{armor cost}$$