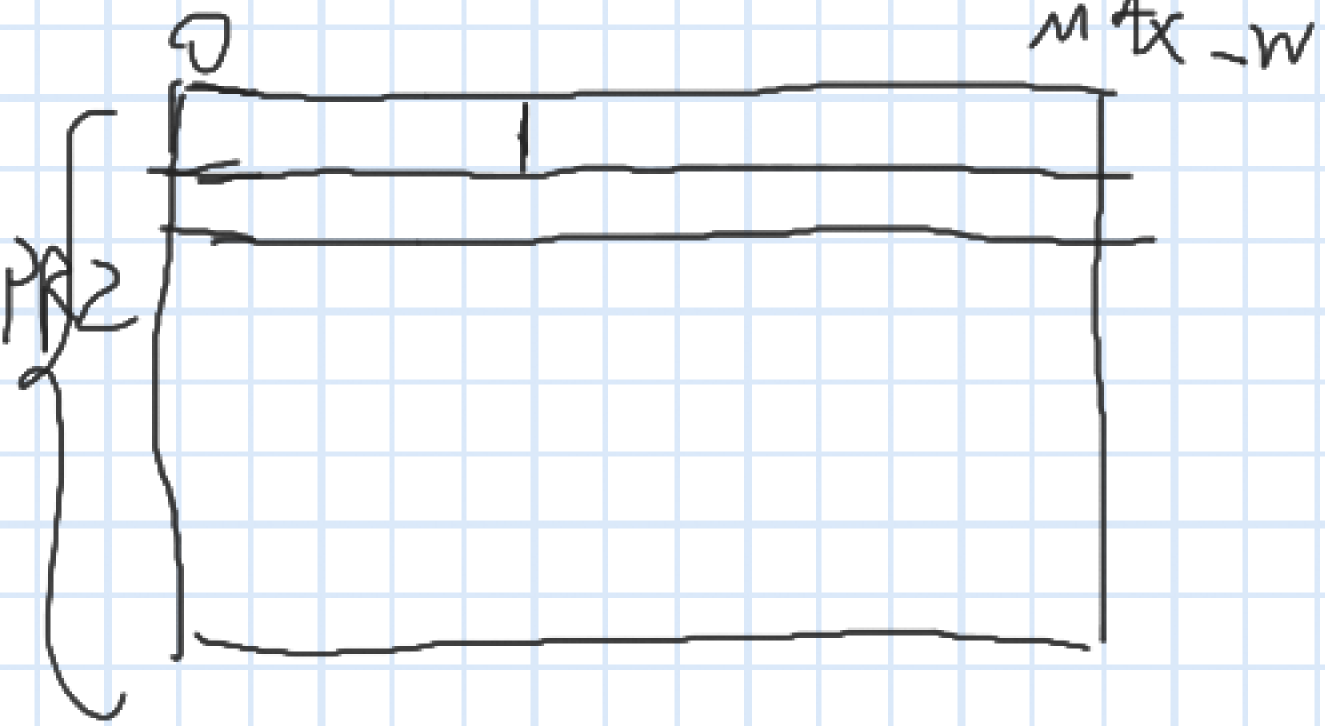
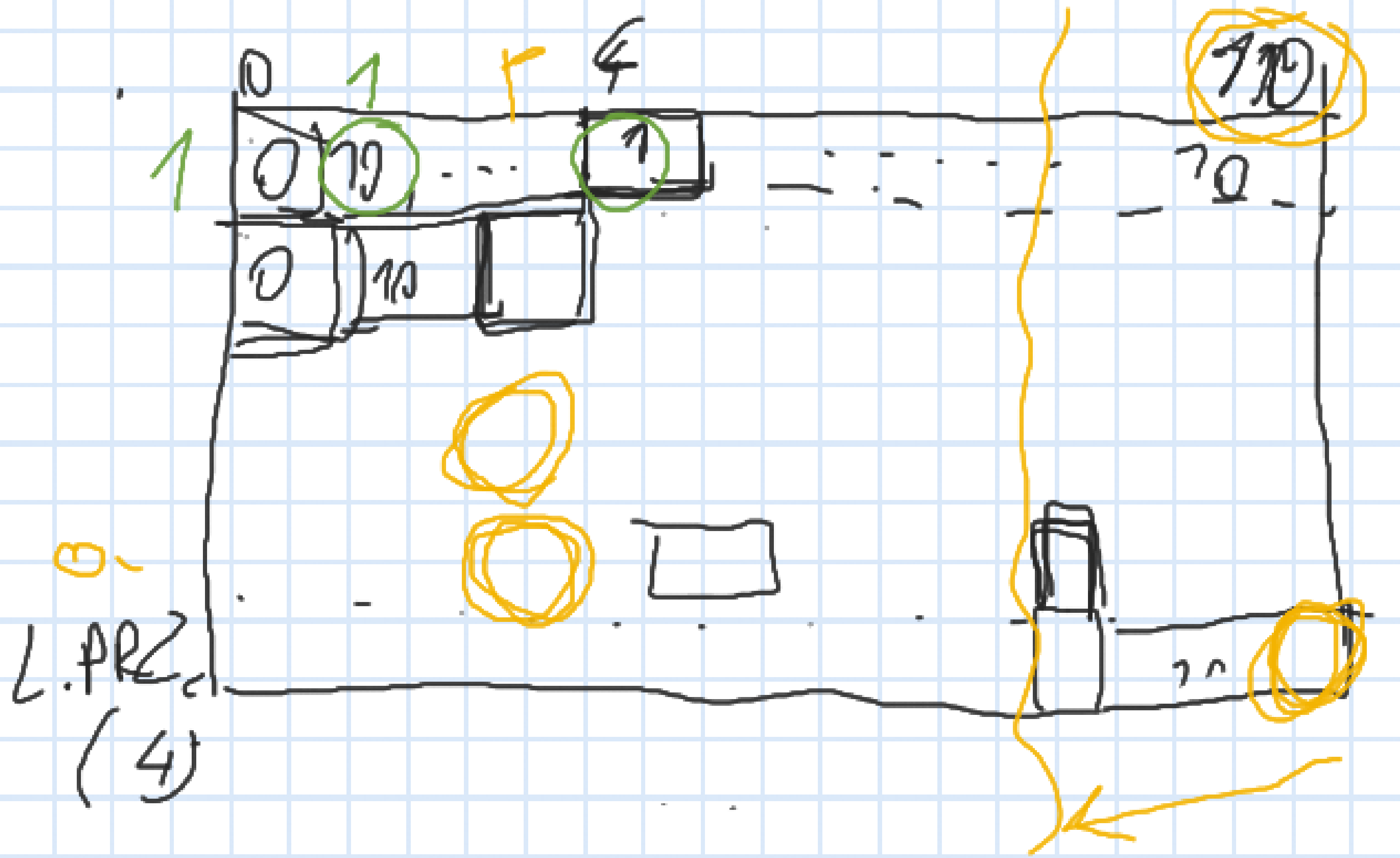


$W = [1, 2, 3, 4]$

$P = [4, 3, 2, 1]$

$MAX\_W = 5$



$R(a, b) =$

Q – NUMER PRZEDMIOTU

V – PROFIT!

$$
f(Q,V) = \begin{cases} \left.\begin{array}{ll} 0 & V = 0 \\ W(1) & V = PROFIT(1) \\ \infty & \text{WINNY.} \end{array}\right\} & Q = 1 \\ \left.\begin{array}{ll} f(Q-1, V) & V < PROFIT(Q) \\ \min(f(Q-1,V),\ f(Q-1, V-P(i)) + W(i)) & V \geq PROFIT(Q) \end{array}\right\} & Q \neq 1 \end{cases}
$$

$f(2, profit)$

$= f(1, profit)$

A – n liczb

T – suma

$A = [13, 7, 21, 42, 3, 2, 44, 52]$

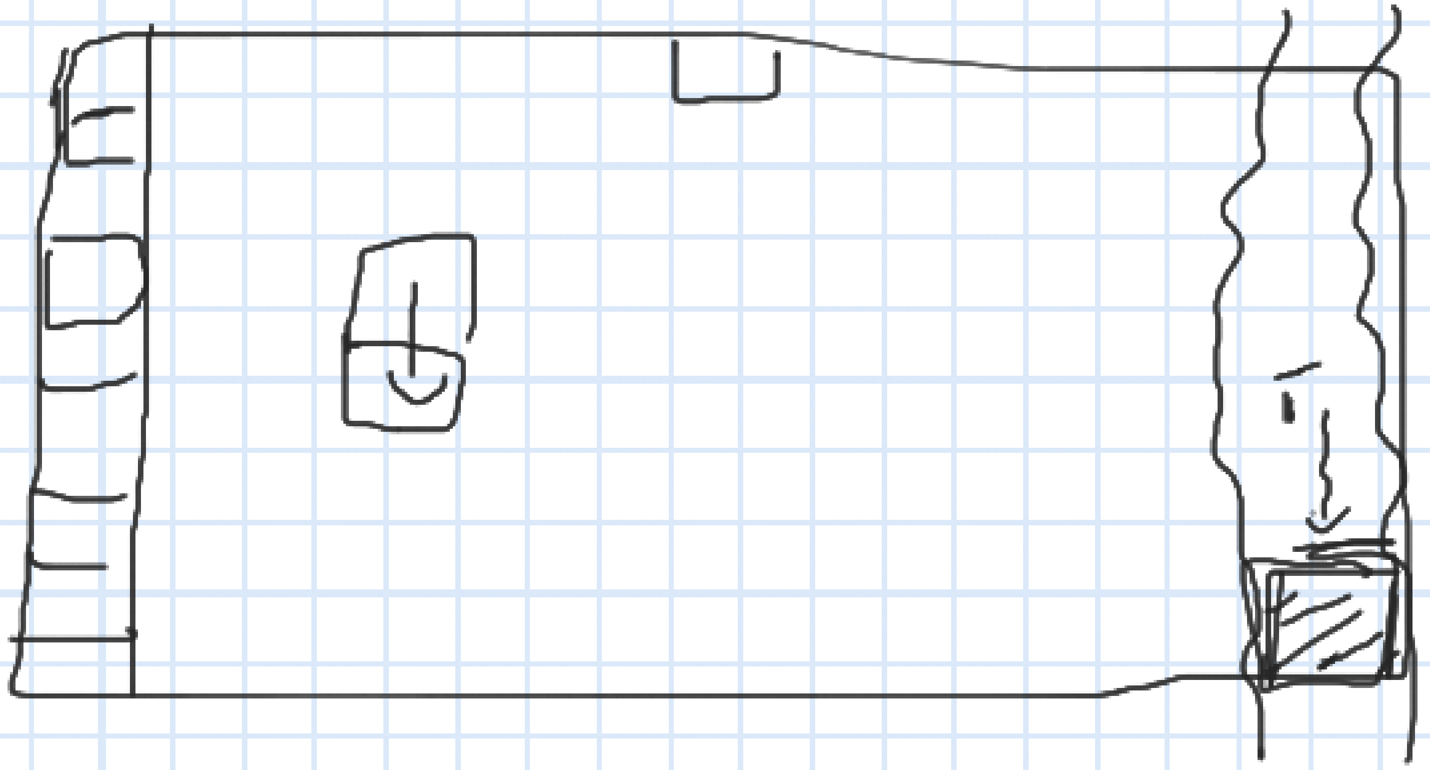
$T = 51$

$f(i, s)$ – czy możliwe jest uzyskanie sumy s użuwając przedmiotów od 0 do i

$f(i, 0) = TRUE$

$f(n-1, T) \stackrel{?}{=} TRUE$

$f(i, s) =$



$f(i, s) = \quad f(i-1, s) \quad \vee \quad f(i-1, s - A[i])$

$f(1, 0) = TRUE$

$f(0, A[0]) = TRUE$

$0 \ldots n_1$: D A M I A N

$0 \ldots n_2$: X D I T N

S_1 - string 1.

S_2 - string 2.

$f(3,2): 1 + f(2,1)$

$$f(n_1-1, n_2-1) = \begin{cases} 1 + f(n_1-2, n_2-2), & S_1[n_1-1] == S_2[n_2-1] \\ \max(\underbrace{f(n_1-2, n_2-1)}_{\mathrm{I}}, \underbrace{f(n_1-1, n_2-2)}_{\mathrm{II}}) \end{cases}$$

$$f(0, i) = 0$$

$$f(i, 0) = 0$$

$f(i, j)$ – wartość max wspólnego podciągu indeksy rozważając od 0 do i-tego oraz od 0 do j-tego

$$f(i,j) = \begin{cases} 1 + f(i-1, j-1), & s_1[i] = s_2[j] \\ \max(f(i-1, j), f(i, j-1)), & s_1[i] \neq s_2[j] \end{cases}$$

$A = [1, 5, 8]$ $\quad T = 15$

$i = 0 \ldots n$ – indeksy monet

$F = [0, \infty, \infty, \infty, \infty, \infty, \ldots, \infty]$

$\quad\quad\quad\;\; 0 \quad 1 \quad 2 \quad 3 \quad 4 \;\; 5 \;\ldots\; 7$

$F(a) = b$

$$F(i) = \min_j \left(F[i - A[j]] + 1 \right)$$

$F(0) = 0$