

$w_i$	①	②	③	④	⑤	⑥	⑦
A	0.28	0.80	0.10	1	—	0.002	$w_{A7}$
B	0.10	0.20	$w_{B3}$	—	1	0.05	$w_{B7}$
C	0.62	—	$w_{C3}$	—	—	0.948	—
	$m_1=1 \text{ kg}$	$m_2$	$m_3$	$m_4$	$m_5$	$m_6$	$m_7$

10 keznáších |  $3+3+2 = 8$  bil. hovic  
 $2 \times \sum w_i = 1$   
 10 hovic

①  $0.28 m_3 + 0.1 m_3 + 0.2 m_2$   
 $0.10 = w_{B3} m_3 + 0.2 m_2$   
 $0.62 = w_{C3} m_3$   
 $1 = m_3 + m_2$

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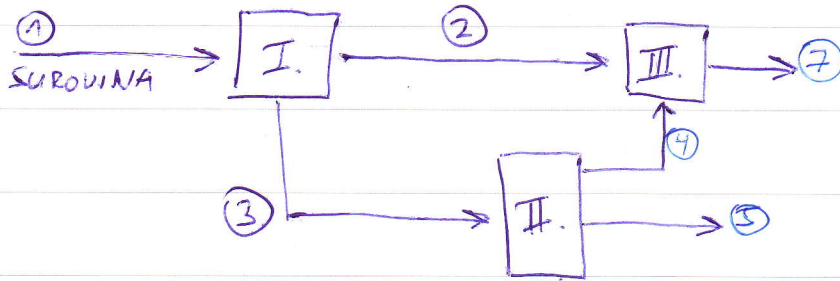
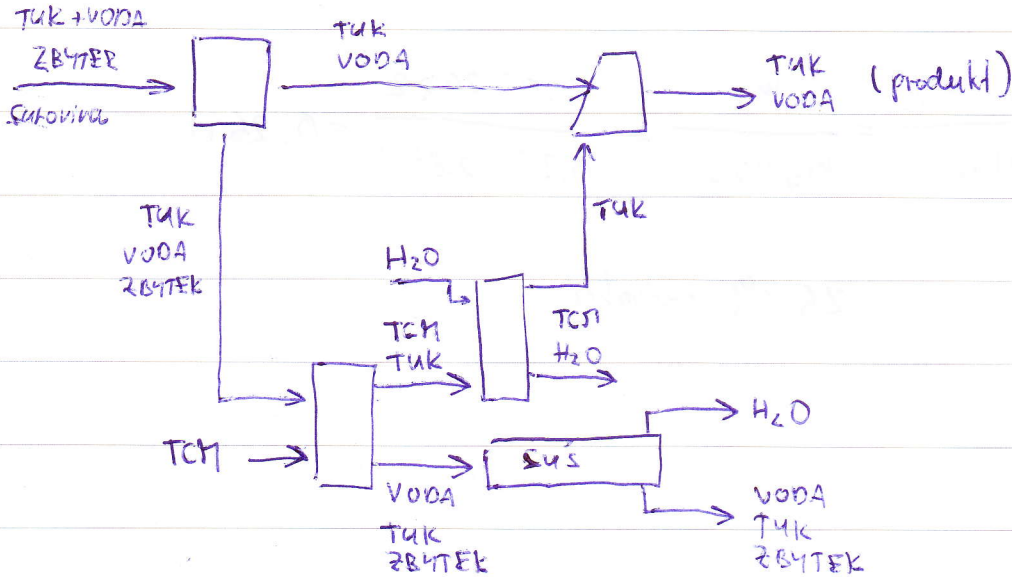
②  $0.1 m_3 = m_4 + 0.002 m_6$   
 $w_{B3} m_3 = m_5 + 0.05 m_6$   
 $w_{C3} m_3 = 0.948 m_6$   
 $m_3 = m_4 + m_5 + m_6$

$0.2 m_2 + m_4 = w_{A7} m_7$   
 $0.2 m_2 = w_{B7} m_7$   
 $m_2 + m_4 = m_7$

$w_{A7} + w_{B7} = 1$   
 $0.1 + w_{B3} + w_{C3} = 1$

①+① →  $m_2 + m_3$  →  $w_{B3}, w_{C3}$   
 ② →  $m_6$  →  $m_4, m_5$

U2-8



10 neznámých  
3+3+2 úloží  
2  $\Sigma x = 1$

	1	2	3	4	5	6	7
A-tuk	0.28	0.80	0.10	1	-	0.002	$W_{A7}$
B-voda	0.10	0.20	$W_{B3}$	-	1	0.05	$W_{B7}$
C-zbytek	0.62	-	$W_{C3}$	-	-	0.948	-
	1 kg	$m_2$	$m_3$	$m_4$	$m_5$	$m_6$	$m_7$

$$\begin{aligned}
 & I. \begin{cases} 1 = m_2 + m_3 \\ 1 \cdot 0.28 = 0.8 m_2 + 0.1 m_3 \text{ (tuk)} \\ 1 \cdot 0.62 = m_3 W_{C3} \text{ (zbytek)} \end{cases} \rightarrow \begin{cases} W_{C3} = 0.8346 \\ m_2 = 0.2571 \text{ kg} \\ m_3 = 0.7429 \text{ kg} \end{cases} \\
 & II. \begin{cases} m_3 = m_4 + m_5 + m_6 \\ 0.1 m_3 = m_4 + 0.002 m_6 \text{ (tuk)} \\ W_{C3} m_3 = 0.948 m_6 \text{ (zbytek)} \end{cases} \rightarrow \begin{cases} m_6 = 0.6540 \text{ kg} \\ m_4 = 0.072982 \text{ kg} \end{cases} \\
 & III. \begin{cases} m_2 + m_4 = m_7 \\ 0.8 m_2 + m_4 = W_{A7} m_7 \text{ (tuk)} \end{cases} \rightarrow \begin{cases} m_7 = 0.3300 \text{ kg} \\ W_{B3} = 0.1654 \\ W_{A7} = 0.8444 \\ W_{B7} = 0.1556 \end{cases}
 \end{aligned}$$

Σložení produktu 84.4% olej 15.6% voda

$$\% = \frac{\text{extrakce olej}}{\text{olej celkem}} = \frac{m_4}{m_7 \cdot W_{A7}} = \frac{0.072982}{0.33 \cdot 0.8445} = 0.2619$$

26,2% extrakce

Stream	Flow (kg/h)	Oil (kg/h)	Water (kg/h)
1	100.0	0.0	100.0
2	100.0	0.0	100.0
3	100.0	0.0	100.0
4	100.0	0.0	100.0
5	100.0	0.0	100.0
6	100.0	0.0	100.0
7	100.0	0.0	100.0
8	100.0	0.0	100.0
9	100.0	0.0	100.0
10	100.0	0.0	100.0
11	100.0	0.0	100.0
12	100.0	0.0	100.0
13	100.0	0.0	100.0
14	100.0	0.0	100.0
15	100.0	0.0	100.0
16	100.0	0.0	100.0
17	100.0	0.0	100.0
18	100.0	0.0	100.0
19	100.0	0.0	100.0
20	100.0	0.0	100.0
21	100.0	0.0	100.0
22	100.0	0.0	100.0
23	100.0	0.0	100.0
24	100.0	0.0	100.0
25	100.0	0.0	100.0
26	100.0	0.0	100.0
27	100.0	0.0	100.0
28	100.0	0.0	100.0
29	100.0	0.0	100.0
30	100.0	0.0	100.0
31	100.0	0.0	100.0
32	100.0	0.0	100.0
33	100.0	0.0	100.0
34	100.0	0.0	100.0
35	100.0	0.0	100.0
36	100.0	0.0	100.0
37	100.0	0.0	100.0
38	100.0	0.0	100.0
39	100.0	0.0	100.0
40	100.0	0.0	100.0
41	100.0	0.0	100.0
42	100.0	0.0	100.0
43	100.0	0.0	100.0
44	100.0	0.0	100.0
45	100.0	0.0	100.0
46	100.0	0.0	100.0
47	100.0	0.0	100.0
48	100.0	0.0	100.0
49	100.0	0.0	100.0
50	100.0	0.0	100.0