

I. část

① $\frac{2}{3} \cdot 360 = \underline{\underline{240}} \text{ €}$

② 600 spolu,
570 dobrá
 $600 - 570 = 30$ nepodarkou

$$\begin{array}{r} \text{Pu} \\ \uparrow 600 \dots\dots 100\% \uparrow \\ \downarrow 30 \dots\dots x\% \downarrow \\ \hline x = \frac{30}{600} \cdot 100 \\ \hline \underline{\underline{x = 5\%}} \end{array}$$

③ $x + (x + 37) = 157$
 $2x = 157 - 37$
 $2x = 120$
 $\underline{\underline{x = 60}}$

1. číslo ... 60
2. číslo ... $60 + 37 = \underline{\underline{97}}$

④ nádobá + voda = 220 kg
odliáli sme $220 - 70 = 150$ kg
 $150 \text{ kg} = 75\%$ vody

$$\begin{array}{r} \uparrow 150 \text{ kg} \dots\dots 75\% \uparrow \\ \downarrow x \text{ kg} \dots\dots 100\% \uparrow \text{ Pu} \\ \hline \end{array}$$

$$x = \frac{150 \cdot 100}{75}$$

$x = 200$ kg vody bolo.

Nádobá važi $220 - 200 = \underline{\underline{20}} \text{ kg}$

⑤

1200 € v pomere 19 : 11
30 dielov

$1200 \text{ €} : 30 = 40 \text{ €} / \text{diel}$

A: $19 \cdot 40 = 760 \text{ €}$
S: $11 \cdot 40 = 440 \text{ €}$
 $760 - 440 = \underline{\underline{320 \text{ €}}}$
o 320 €.

⑥

25t	1600 stranov	
x6	32 stranov	

$$x = \frac{25 \cdot 32}{1600}$$

$$x = \frac{8}{16}$$

$$x = \frac{1}{2} t$$

$$\underline{\underline{x = 500 \text{ kg}}}$$

⑦

1 : 5000
(cm) ≈ (cm)

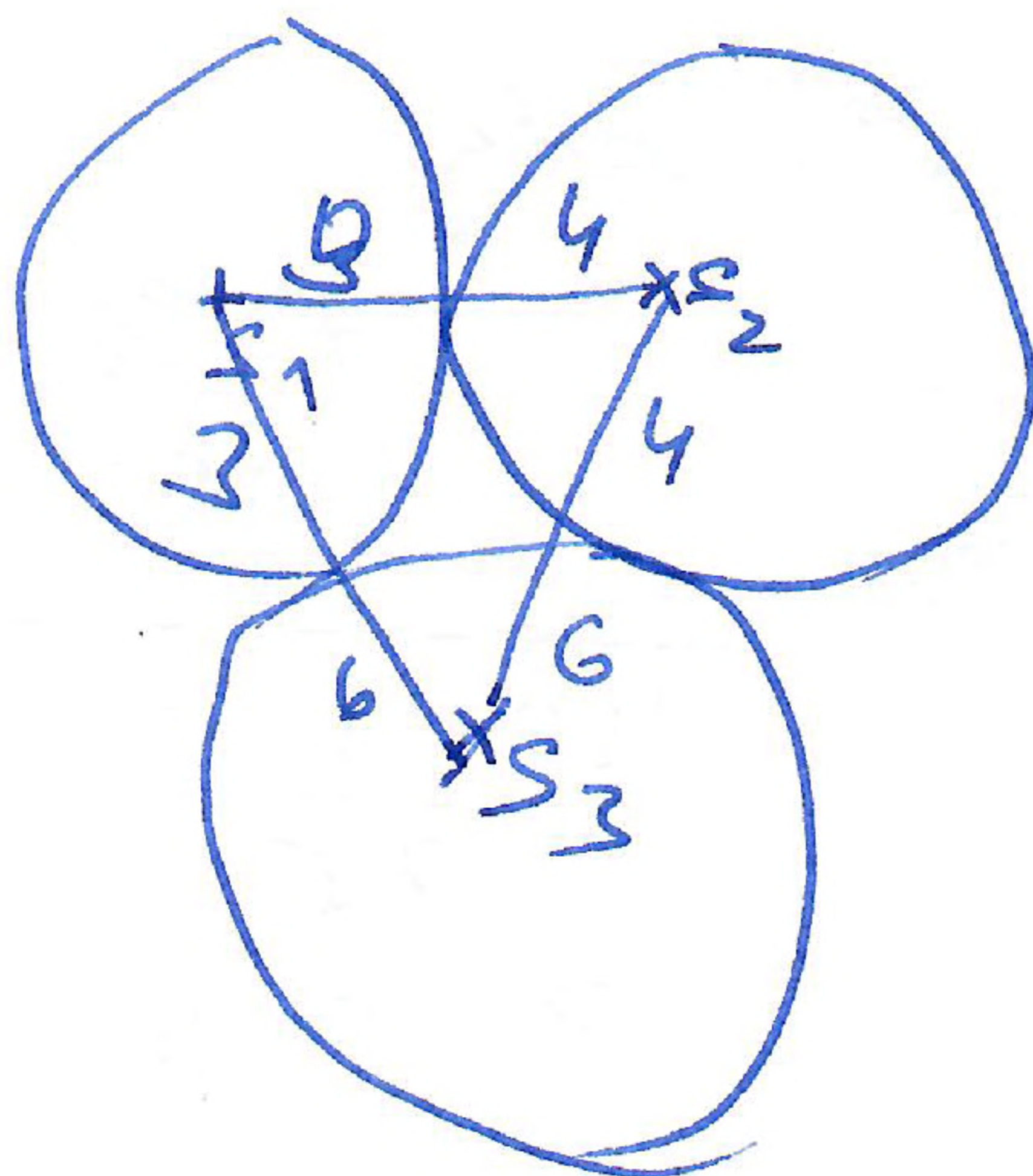
5cm na kape:

$$5 \cdot 5000 \text{ cm} = 25000 \text{ cm}$$

$$25000 : 50 = \underline{\underline{500 \text{ krokov}}}$$

II. část

①



$$a = 3 + 4 = 7 \text{ cm}$$

$$b = 4 + 6 = 10 \text{ cm}$$

$$c = 6 + 3 = 9 \text{ cm}$$

$$\sigma = a + b + c$$

$$\sigma = 7 + 10 + 9$$

$$\underline{\underline{\sigma = 26 \text{ cm}}}$$

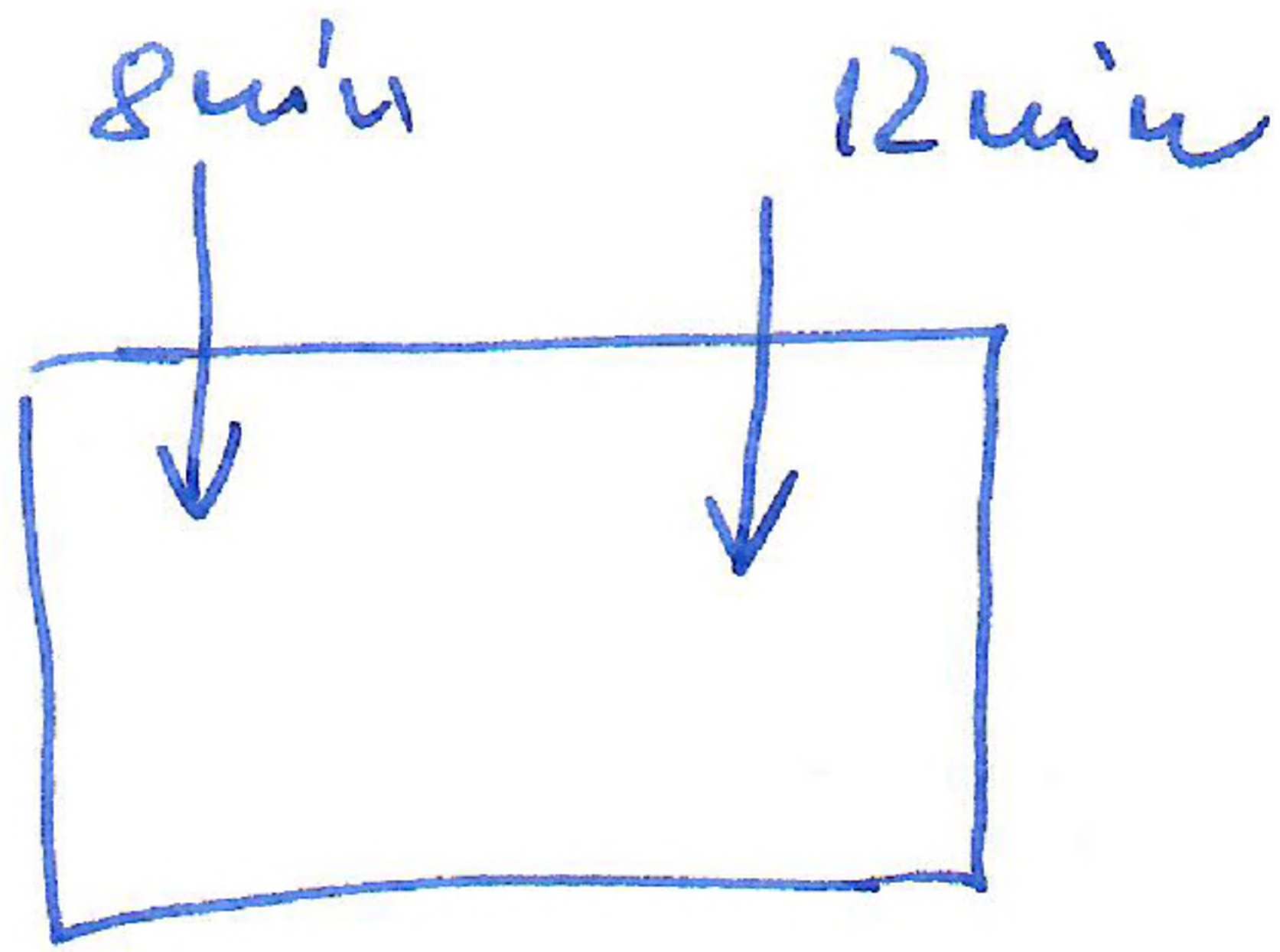
②

$$60^\circ - 42^\circ = 18^\circ$$

$$180^\circ - (18^\circ + 60^\circ) = 180^\circ - 78^\circ = \underline{\underline{102^\circ}}$$

3

	celá hodnota 29	za 1 min	za x min
Prívod 1.	8 min	$\frac{1}{8} N$	$\frac{1}{8} x$
Prívod 2.	12 min	$\frac{1}{12} N$	$\frac{1}{12} x$



$$\frac{1}{8}x + \frac{1}{12}x = 1 / .24$$

$$3x + 2x = 24$$

$$5x = 24$$

$$x = \frac{24}{5}$$

$$x = 4,8 \text{ min}$$

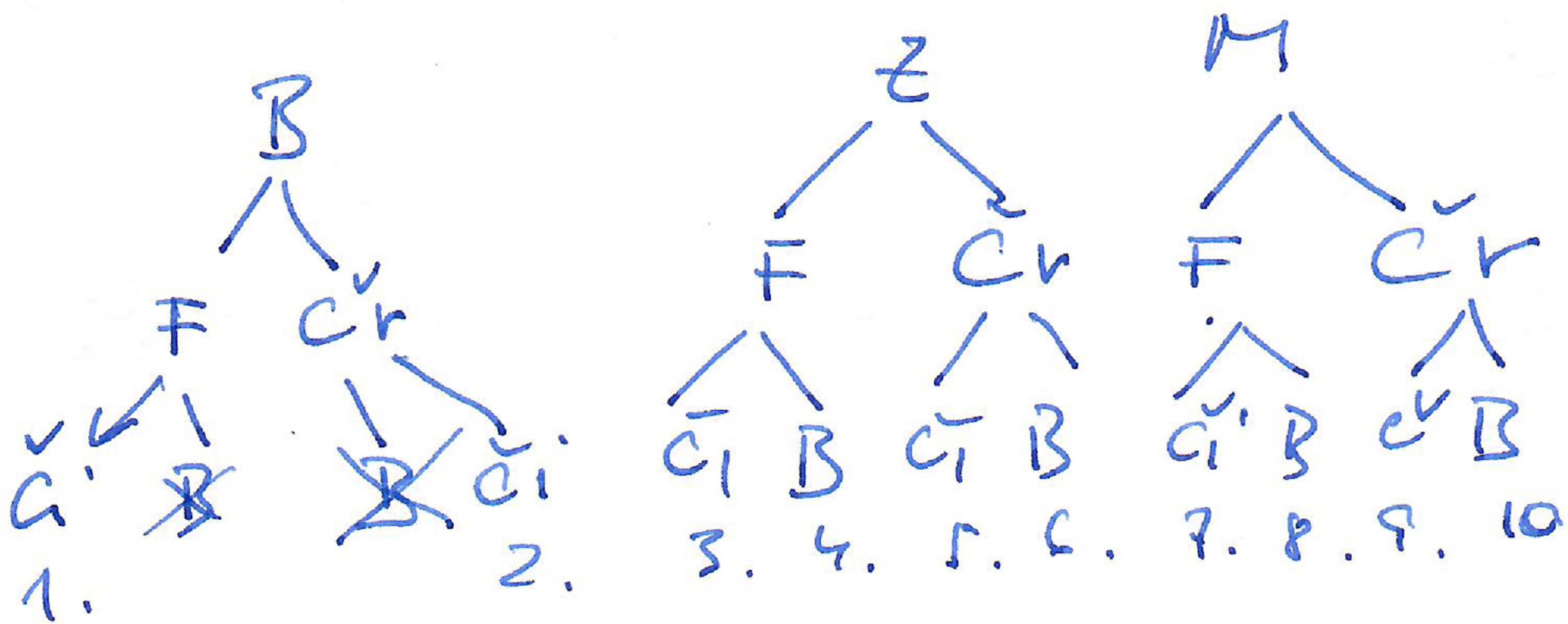
$$x = 4 \frac{4}{5} \text{ min}$$

$$\frac{1}{5} \text{ min} = 12 \text{ s}$$

$$\frac{4}{5} \text{ min} = 12 \cdot 4 = 48 \text{ s}$$

Nabúra sa naplní za 4 min 48 s.

4

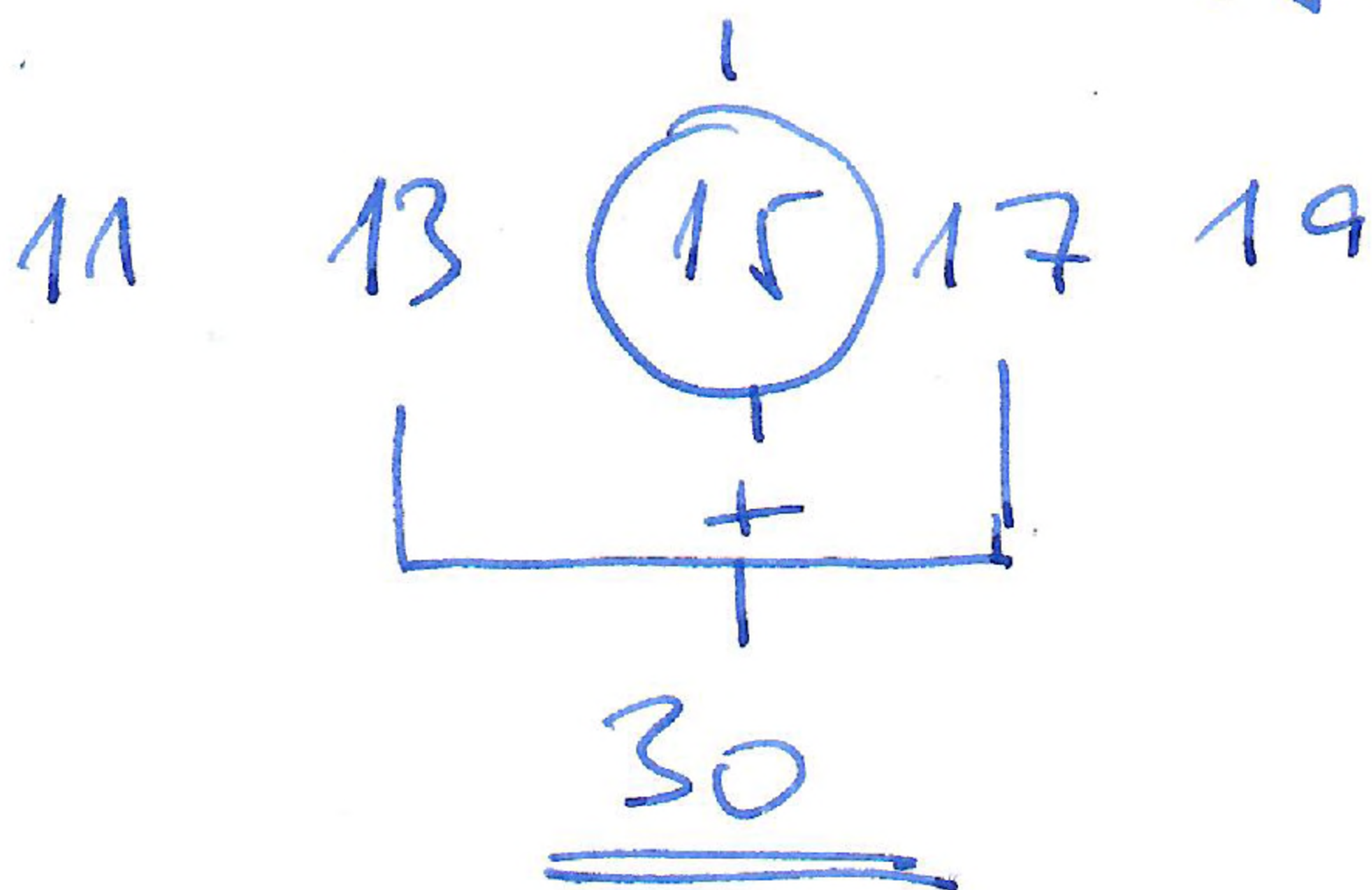


10 spôsobov

5

$$75 : 5 = 15$$

číslo 15 je traktívno v poradí.



⑥

$$\left. \begin{array}{l} \downarrow 250 \text{ ú/min} \dots\dots 16 \text{ min} \\ 200 \text{ ú/min} \dots\dots x \text{ min} \end{array} \right\} \text{NU}$$

$$\frac{x}{16} = \frac{250}{200} \quad / \cdot 16$$

$$x = \frac{250 \cdot 16}{100}$$

$$x = \underline{20 \text{ min}}$$

$$20 - 16 = \underline{4 \text{ min}} \quad \text{o } 4 \text{ min}$$

⑦

$$\begin{array}{l} * 678 * \\ \times 6780 \end{array} \quad \begin{array}{l} : 2 \\ : 5 \\ : 9 \end{array} \Rightarrow 0$$

číf. súčet 6780 je 21

číf. súčet celého čísla bude 27 (27:9=3)

hľadané číslo je $27 - 21 = \underline{6}$

súčet 1. a 5. čísla je $6 + 0 = \underline{6}$

III část

- ① a) nie
b) nie
c) ano ✓
d) ano ✓

- ② a) pravda x
b) nie je pravda ✓
c) pravda x
d) nie je pravda ✓

IV část

①

$$15 = \frac{4-x}{6} + \frac{5x-2}{3} \quad | \cdot 6$$

$$90 = 4-x + 10x-4$$

$$90 = -x + 10x$$

$$9x = 90 \quad | :9$$

$$\underline{\underline{x = 10}}$$

$$L' = 15$$

$$P = \frac{4-10}{6} + \frac{50-2}{3} = \underline{15} \quad L' = P$$

$$(2) a) \frac{60}{60} - \left(\frac{20}{60} + \frac{15}{60} + \frac{12}{60} \right) = \frac{60}{60} - \frac{47}{60} = \underline{\underline{\frac{13}{60}}}$$

$$\underline{\underline{\frac{13}{60}}} - p$$

b) Celkový počet zlatých je :

$$\frac{1}{4} \text{ je } 3000 \Rightarrow 3000 \cdot 4 = \underline{\underline{12000 \text{ zl.}}}$$

$$1. \text{ qm} \quad \frac{1}{3} \cdot 12000 = 4000 \text{ zl}$$

$$2. \text{ sm} \quad \frac{1}{4} \cdot 12000 = 3000 \text{ zl}$$

$$3. \text{ sm} \quad \frac{1}{5} \cdot 12000 = 2400 \text{ zl}$$

$$4. \text{ sm} \quad \frac{13}{60} \cdot 12000 = 2600 \text{ zl}$$