

#### 4. VRA - UTRJEVANJE - REŠITVE

Ž2 str. 176/11 → RAČUNAM HIPOTENUZO.

$$\begin{aligned} \text{a) } h^2 &= a^2 + b^2 \\ h^2 &= 12^2 + 16^2 \\ h^2 &= 144 + 256 \\ h^2 &= 400 \\ h &= \sqrt{400} \\ h &= 20 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{b) } h^2 &= e^2 + y^2 \\ h^2 &= 5^2 + 12^2 \\ h^2 &= 25 + 144 \\ h^2 &= 169 \\ h &= \sqrt{169} \\ h &= 13 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{c) } h^2 &= m^2 + m^2 \\ h^2 &= 0,9^2 + 4^2 \\ h^2 &= 0,81 + 16 \\ h^2 &= 16,81 \\ h &= \sqrt{16,81} \\ h &= 4,1 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{c) } h^2 &= v^2 + z^2 \\ h^2 &= 120^2 + 350^2 \\ h^2 &= 14400 + 122500 \\ h^2 &= 136900 \\ h &= \sqrt{136900} \\ h &= 370 \text{ cm} \end{aligned}$$

Ž2 str. 176/12 → RAČUNAM KATETO.

$$\begin{aligned} \text{a) } k^2 &= x^2 - y^2 \\ k^2 &= 3,7^2 - 1,2^2 \\ k^2 &= 13,69 - 1,44 \\ k^2 &= 12,25 \\ k &= \sqrt{12,25} \\ k &= 3,5 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{b) } k^2 &= 0,17^2 - 0,08^2 \\ k^2 &= 0,0289 - 0,0064 \\ k^2 &= 0,0225 \\ k &= \sqrt{0,0225} \\ k &= 0,15 \text{ cm} \end{aligned}$$

$$c) \quad k^2 = c^2 - \check{c}^2$$

$$k^2 = \left(2\frac{3}{7}\right)^2 - \left(1\frac{1}{7}\right)^2$$

$$k^2 = \left(\frac{17}{7}\right)^2 - \left(\frac{8}{7}\right)^2$$

$$k^2 = \frac{289}{49} - \frac{64}{49}$$

$$k^2 = \frac{225}{49}$$

$$k = \sqrt{\frac{225}{49}}$$

$$k = \frac{15}{7} = 2\frac{1}{7} \text{ m}$$

$$\check{c}) \quad k^2 = b^2 - a^2$$

$$k^2 = 4,8^2 - 1,4^2$$

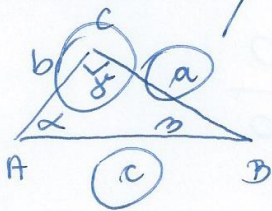
$$k^2 = 23,04 - 1,96$$

$$k^2 = 21,08$$

$$k = \sqrt{21,08}$$

$$k = 4,6 \text{ m}$$

22 str. 176/13



$$a) \quad a = 6,3 \text{ cm}$$

$$c = 6,5 \text{ cm}$$

$$b^2 = c^2 - a^2$$

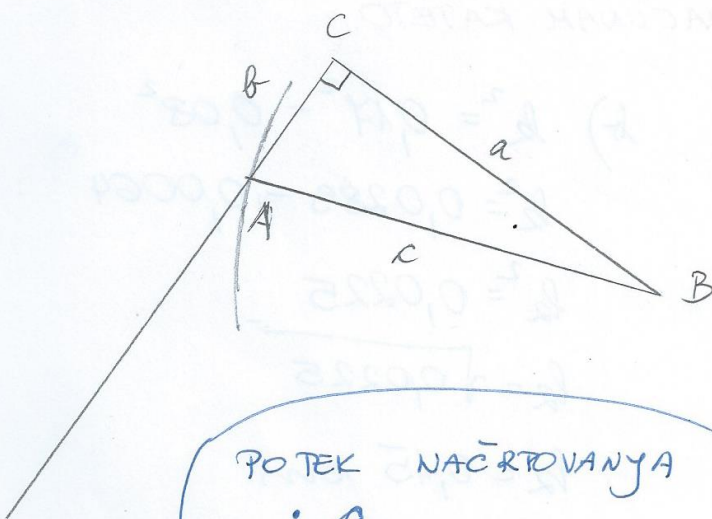
$$b^2 = 6,5^2 - 6,3^2$$

$$b^2 = 42,25 - 39,69$$

$$b^2 = 2,56$$

$$b = \sqrt{2,56}$$

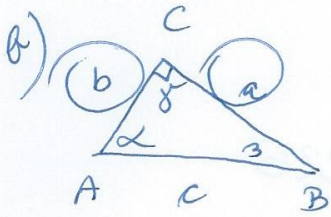
$$b = 1,6 \text{ cm}$$



POTEK NACRTOVANIA

- a
- KOT  $\gamma = 90^\circ$
- ŠESTILO c





$$a = 4 \text{ cm}$$

$$b = 5 \text{ cm}$$

$$c^2 = a^2 + b^2$$

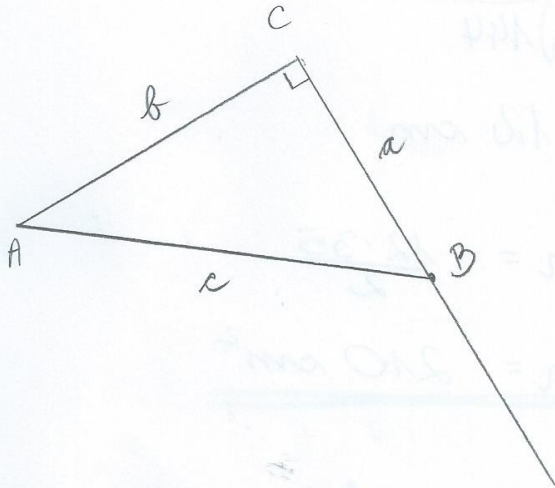
$$c^2 = 4^2 + 5^2$$

$$c^2 = 16 + 25$$

$$c^2 = 41$$

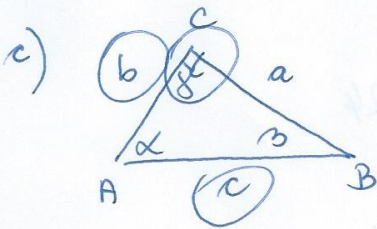
$$c = \sqrt{41}$$

$$c = 6,4 \text{ cm}$$



POTEK NACRTOVANJA

- b
- kot  $\beta = 90^\circ$
- a



$$c = 36 \text{ mm}$$

$$b = 27 \text{ mm}$$

$$a^2 = c^2 - b^2$$

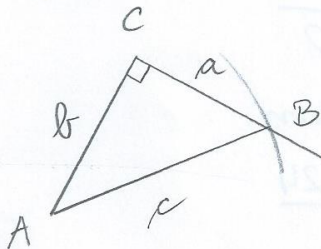
$$a^2 = 36^2 - 27^2$$

$$a^2 = 1296 - 729$$

$$a^2 = 567$$

$$a = \sqrt{567}$$

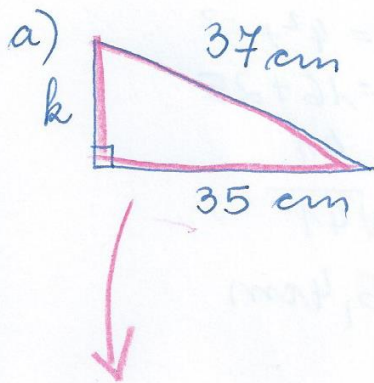
$$a = 23,8 \text{ mm}$$



POTEK NACRTOVANJA

- b
- kot  $\beta = 90^\circ$
- ŠESTILO c

Z2 str. 177/14



$$k^2 = 37^2 - 35^2$$

$$k^2 = 1369 - 1225$$

$$k^2 = 144$$

$$k = \sqrt{144}$$

$$k = 12 \text{ cm}$$

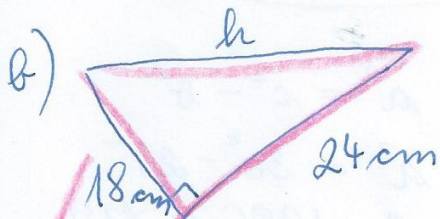
**OBSEG**

$$o = 37 + 35 + 12$$

$$o = 84 \text{ cm}$$

$$p = \frac{12 \cdot 35}{2}$$

$$p = 210 \text{ cm}^2$$



$$h^2 = 24^2 + 18^2$$

$$h^2 = 576 + 324$$

$$h^2 = 900$$

$$h = \sqrt{900}$$

$$h = 30 \text{ cm}$$

$$p = \frac{18 \cdot 24}{2}$$

$$p = 216 \text{ cm}^2$$

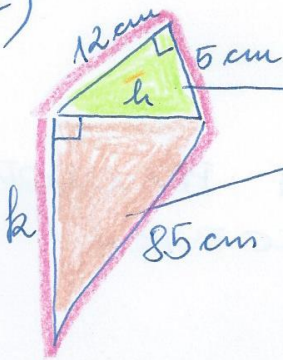
**OBSEG**

$$o = 18 + 24 + 30$$

$$o = 72 \text{ cm}$$



c)



DVA PRAVOKOTNA TRIKOTNIKA

ZELENI

$$h^2 = 12^2 + 5^2$$

$$h^2 = 144 + 25$$

$$h^2 = 169$$

$$h = \sqrt{169}$$

$$h = 13 \text{ cm}$$

$$p = \frac{12 \cdot 5}{2}$$

$$p = 30 \text{ cm}^2$$

OBSEG

$$o = 12 + 5 + 85 + 84$$

$$o = 186 \text{ cm}$$

RUMENI

$$k^2 = 85^2 - 13^2$$

$$k^2 = 7225 - 169$$

$$k^2 = 7056$$

$$k = \sqrt{7056}$$

$$k = 84 \text{ cm}$$

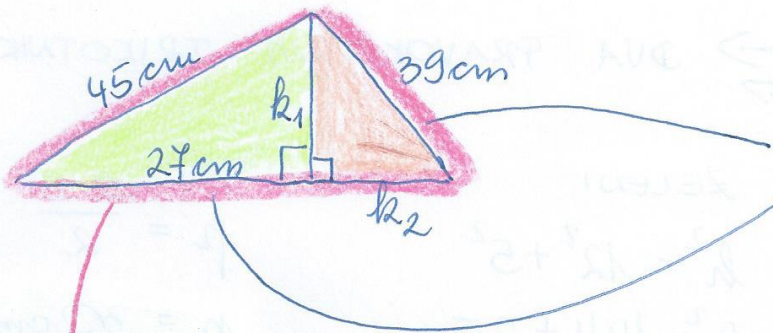
$$p = \frac{13 \cdot 84}{2}$$

$$p = 546 \text{ cm}^2$$

PLOŠČINA JE SESTAVLJENA IZ PLOŠČIN OBEH TRIKOTNIKOV.

$$p = 30 + 546 = 576 \text{ cm}^2$$

c)



DVA PRAVOKOTNA  
TRIKOTNIKA

**ZELENI**

$$k_1^2 = 45^2 - 27^2$$

$$k_1^2 = 2025 - 729$$

$$k_1^2 = 1296$$

$$k_1 = \sqrt{1296}$$

$$k_1 = 36 \text{ cm}$$

$$p = \frac{27 \cdot 36}{2}$$

$$p = 486 \text{ cm}^2$$

**OBSEG**

$$o = 45 + 27 + 15 + 39$$

$$o = 126 \text{ cm}$$

**RUMENI**

$$k_2^2 = 39^2 - 36^2$$

$$k_2^2 = 1521 - 1296$$

$$k_2^2 = 225$$

$$k_2 = \sqrt{225}$$

$$k_2 = 15 \text{ cm}$$

$$p = \frac{36 \cdot 15}{2}$$

$$p = 270 \text{ cm}^2$$

PLOŠČINA JE SESTAVljena IZ PLOŠČIN OBEH  
TRIKOTNIKOV.

$$p = 486 + 270 = 756 \text{ cm}^2$$