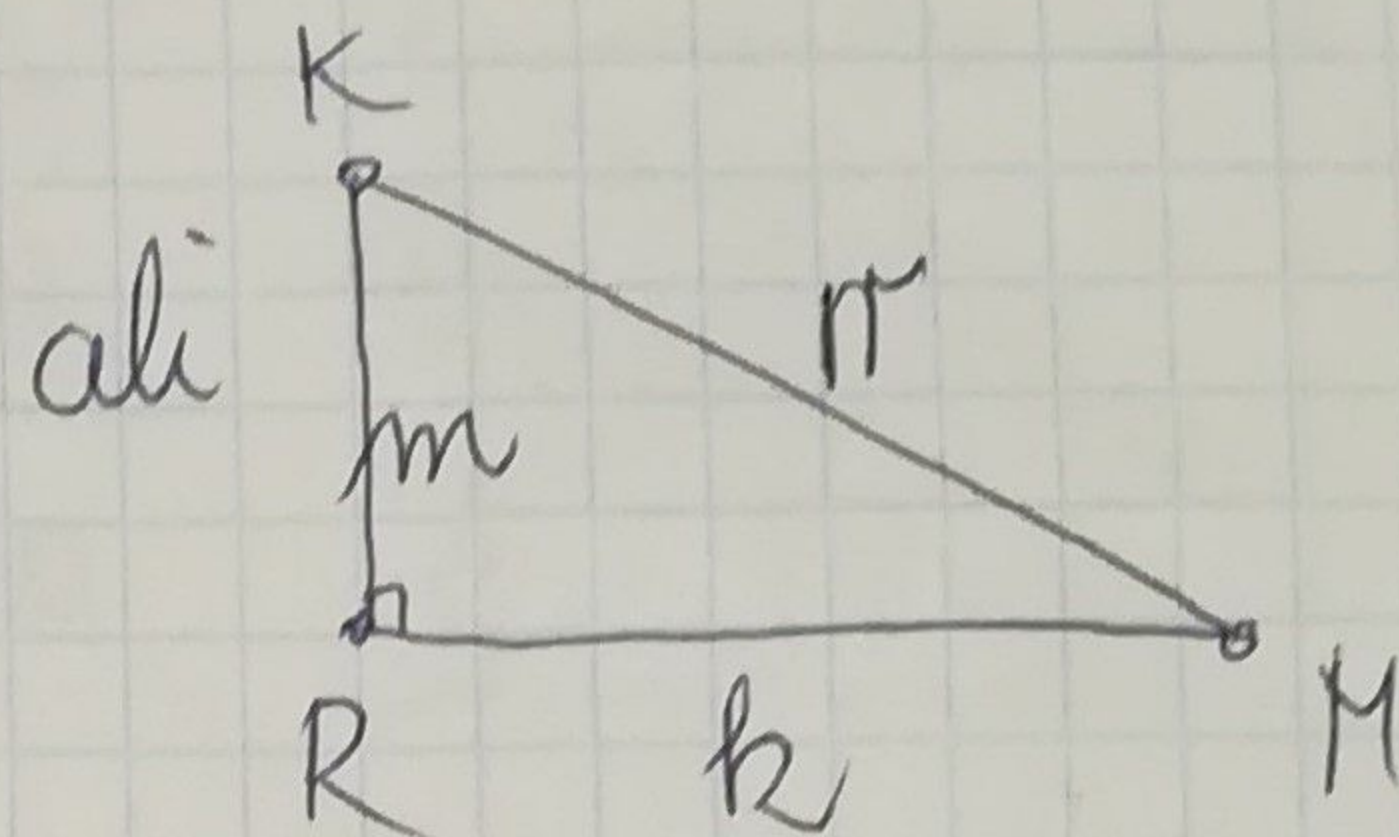
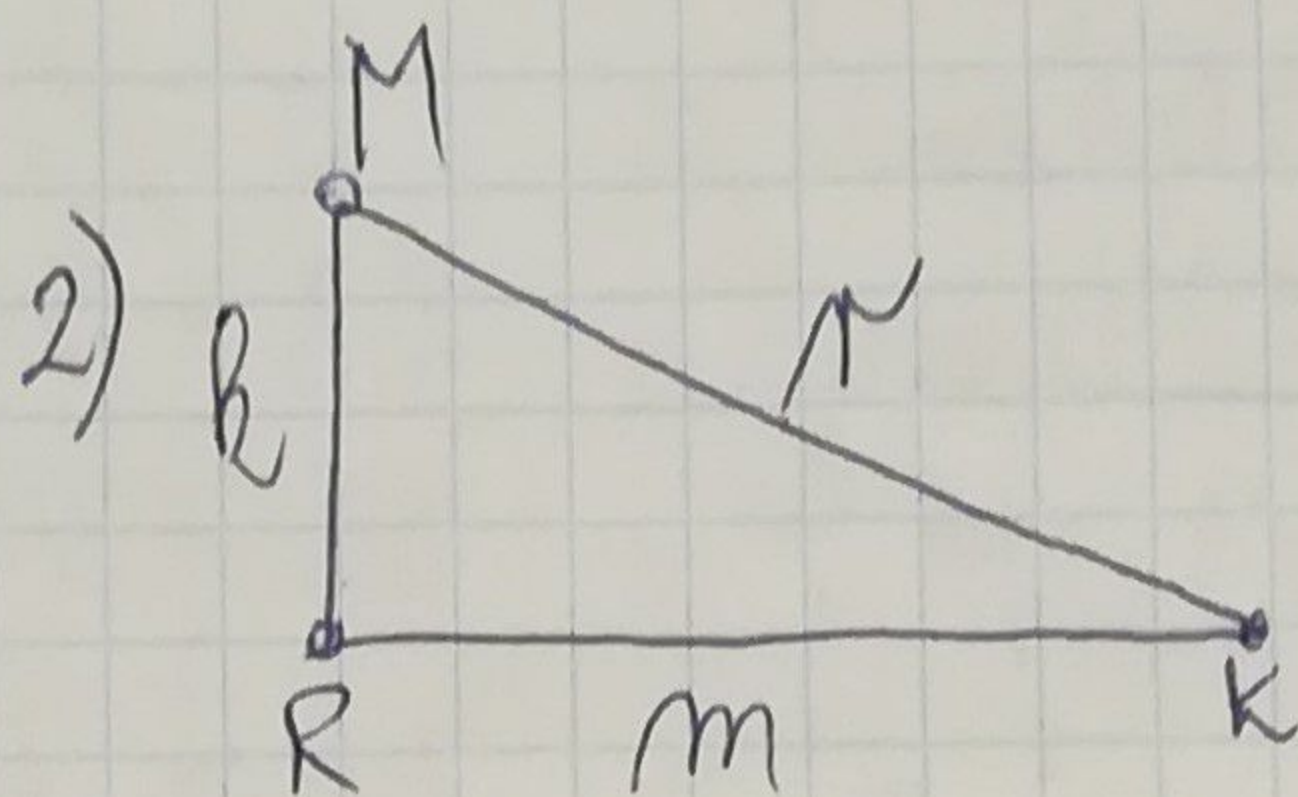


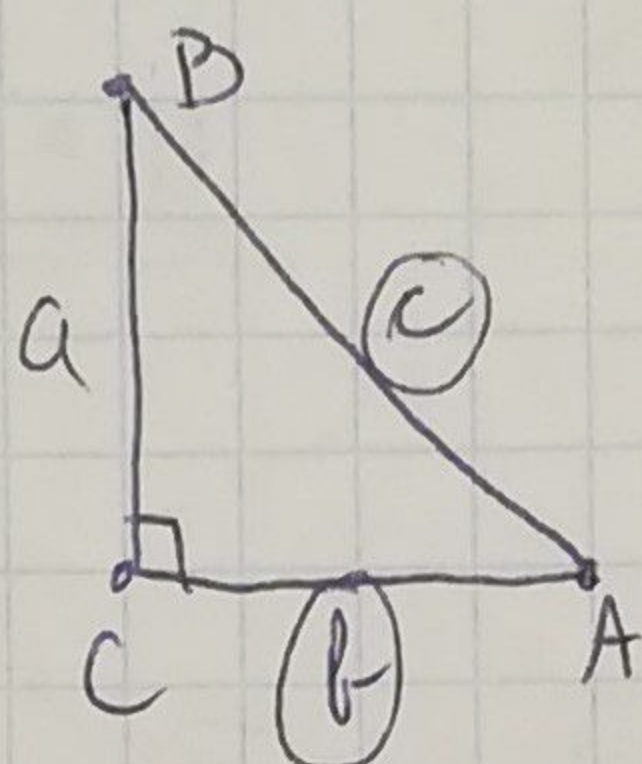
UTRJEVANJE - PITAGOROU ZREK - 2 ura

1) $r^2 = t^2 + s^2$
 $t^2 = r^2 - s^2$
 $s^2 = r^2 - t^2$



3) a) $\perp \Delta: c = 8 \text{ m}$
 $b = 1,5 \text{ m}$

 $a, p = ?$



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

$$a^2 = 8^2 - 1,5^2$$

$$a^2 = 64 - 2,25$$

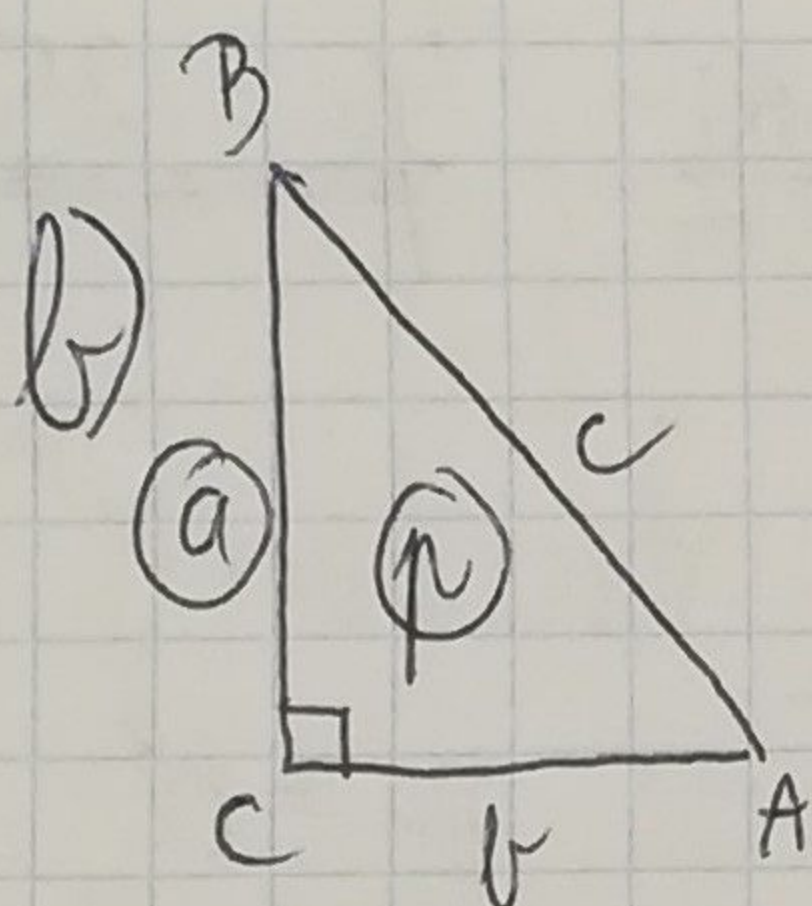
$$a^2 = 61,75$$

$$a = \underline{\underline{7,86 \text{ m}}}$$

$$p = \frac{a \cdot b}{2}$$

$$p = \frac{7,86 \cdot 1,5}{2}$$

$$p = \underline{\underline{5,895 \text{ m}^2}}$$



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

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

 $b = ?; c = ?$

$$p = \frac{a \cdot b}{2}$$

$$30 = \frac{12 \cdot b}{2}$$

$$12 \cdot b = 30 \cdot 2$$

$$12 \cdot b = 60$$

$$b = \frac{60}{12}$$

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

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

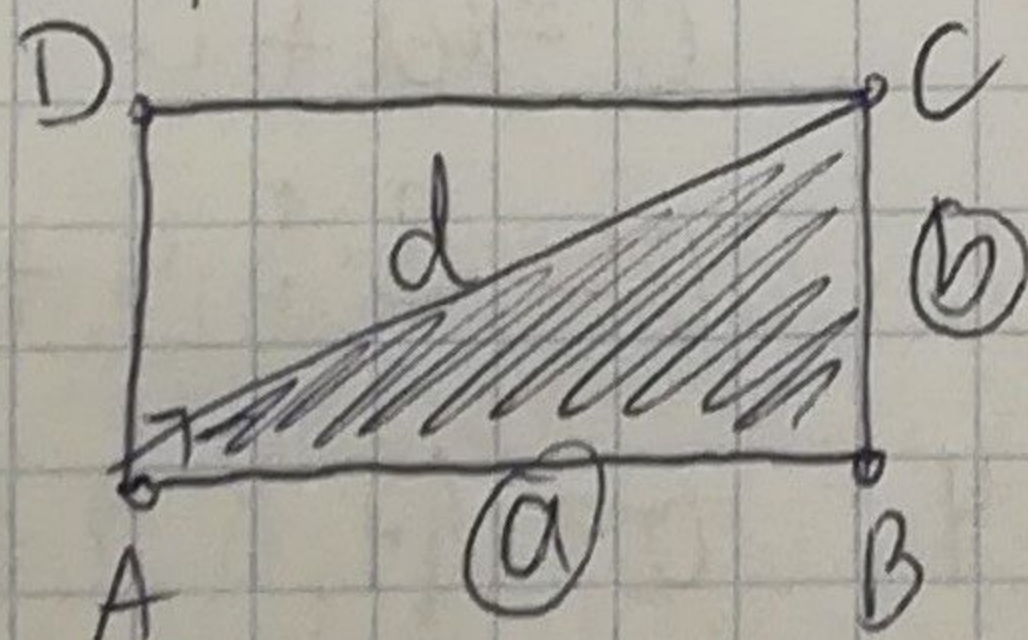
$$c^2 = 12^2 + 5^2$$

$$c^2 = 144 + 25$$

$$c^2 = 169$$

$$c = \underline{\underline{13 \text{ cm}}}$$

c) Pravokotnik



$$a = 10 \text{ m}$$

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

 $d = ?$

$$d^2 = a^2 + b^2$$

$$d^2 = 10^2 + 5^2$$

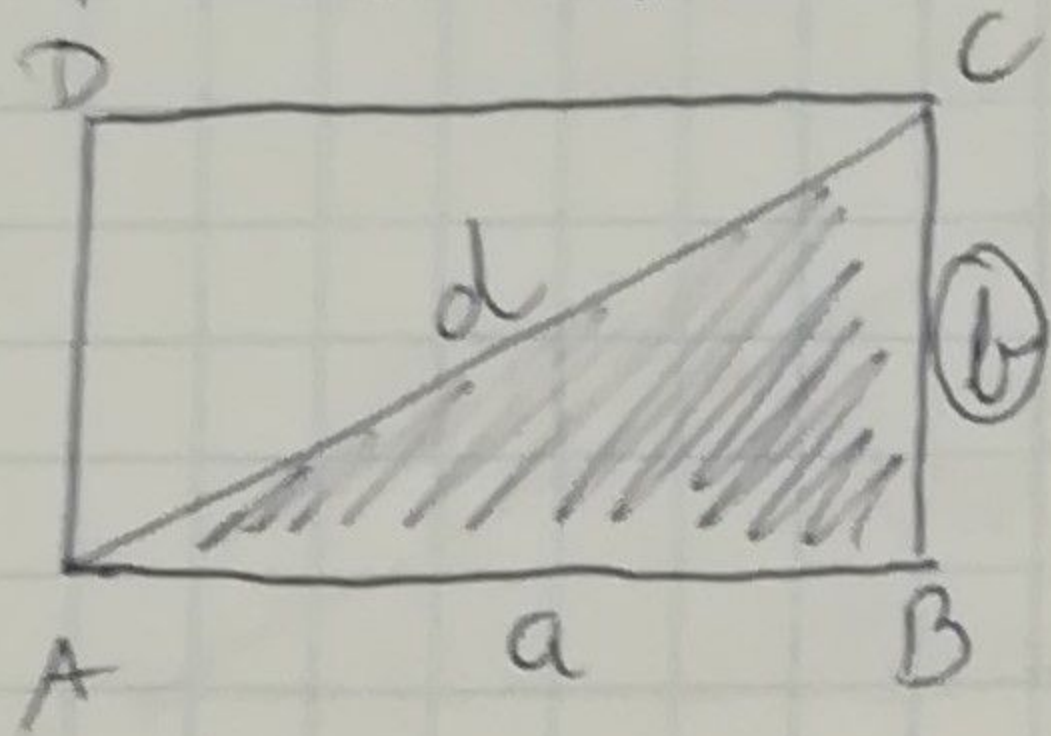
$$d^2 = 100 + 25$$

$$d^2 = 125$$

$$d = \sqrt{125} = \sqrt{25 \cdot 5}$$

$$d = \underline{\underline{5\sqrt{5} \text{ m}}}$$

c) Pravoúhelník

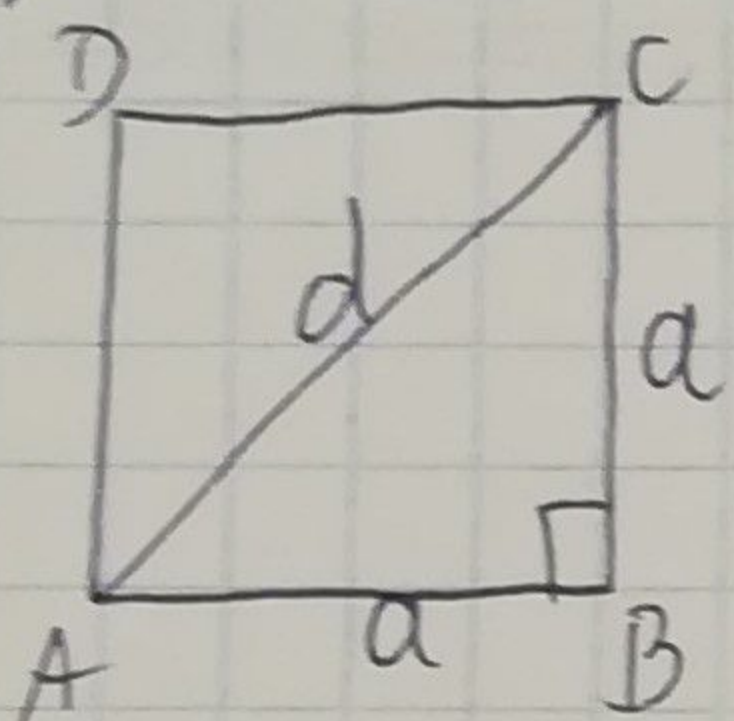


$$\begin{aligned} \sigma &= 68 \text{ cm} \\ b &= 24 \text{ cm} \\ a &= ?, p = ? \end{aligned}$$

$$\begin{aligned} \sigma &= 2 \cdot a + 2 \cdot b \\ 68 &= 2 \cdot a + 2 \cdot 24 \\ 68 &= 2 \cdot a + 48 \\ 2 \cdot a &= 68 - 48 \\ 2 \cdot a &= 20 \\ \underline{a} &= \underline{10 \text{ cm}} \end{aligned}$$

$$\begin{aligned} p &= a \cdot b \\ p &= 10 \cdot 24 \\ \underline{p} &= \underline{240 \text{ cm}^2} \end{aligned}$$

d) Kvadrat

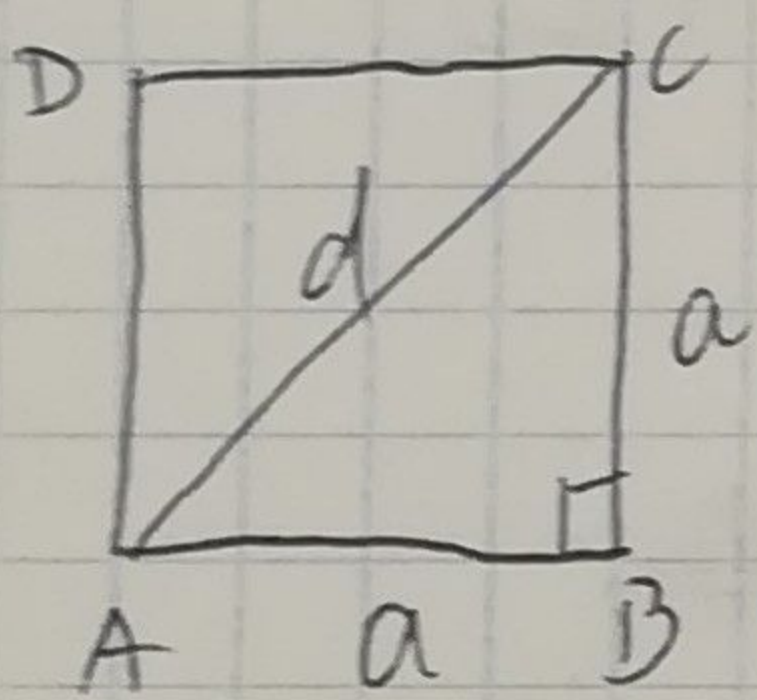


$$\begin{aligned} a &= 5 \text{ cm} \\ d &= ? \\ \sigma &= ?, p = ? \end{aligned}$$

$$\begin{aligned} d &= a\sqrt{2} \\ d &= 5 \cdot \sqrt{2} \\ \underline{d} &= \underline{5\sqrt{2} \text{ cm}} \\ \sigma &= 4 \cdot a \\ \sigma &= 4 \cdot 5 \\ \underline{\sigma} &= \underline{20 \text{ cm}} \end{aligned}$$

$$\begin{aligned} p &= a^2 \\ p &= 5^2 \\ \underline{p} &= \underline{25 \text{ cm}^2} \end{aligned}$$

e) Kvadrat



$$\begin{aligned} \sigma &= 28 \text{ cm} \\ a &= ?, d = ?, p = ? \end{aligned}$$

$$\begin{aligned} \sigma &= 4 \cdot a \\ 28 &= 4 \cdot a \\ a &= 28 : 4 \\ \underline{a} &= \underline{7 \text{ cm}} \end{aligned}$$

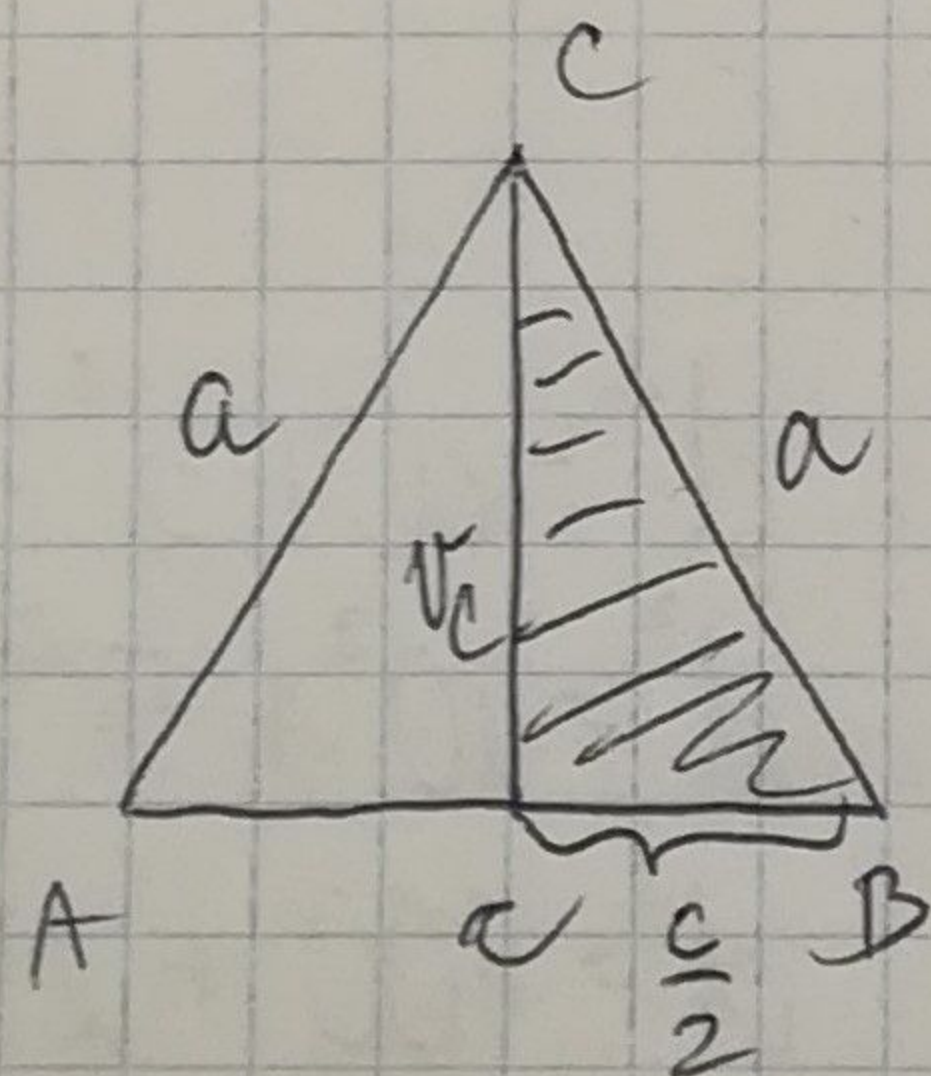
$$\begin{aligned} d &= a\sqrt{2} \\ d &= 7 \cdot \sqrt{2} \\ \underline{d} &= \underline{7\sqrt{2} \text{ cm}} \\ p &= a^2 \\ p &= 7^2 \\ \underline{p} &= \underline{49 \text{ cm}^2} \end{aligned}$$

f) Enakokraké Δ

$$c = 16 \text{ cm}$$

$$N_c = 39 \text{ cm}$$

$$a = ?, \sigma = ?$$



$$a^2 = N_c^2 + \left(\frac{c}{2}\right)^2$$

$$a^2 = 3,9^2 + 8^2$$

$$a^2 = 15,21 + 64$$

$$a^2 = 79,21$$

$$\underline{a} = \underline{8,9 \text{ cm}}$$

$$\sigma = 2a + c$$

$$\sigma = 2 \cdot 8,9 + 16$$

$$\sigma = 17,8 + 16$$

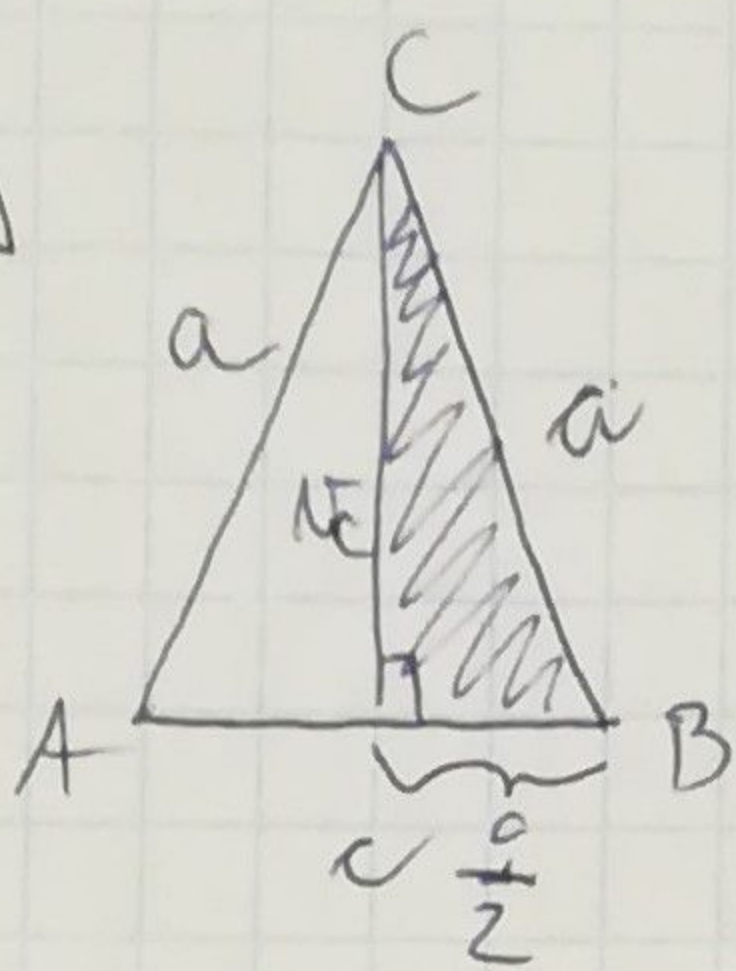
$$\underline{\sigma} = \underline{33,8 \text{ cm}}$$

g) Enakokraki Δ

$$c = 16 \text{ cm}$$

$$a = 10 \text{ cm}$$

$$N_c = ?, p = ?$$



$$N_c^2 = a^2 - \left(\frac{c}{2}\right)^2$$

$$N_c^2 = 10^2 - 8^2$$

$$N_c^2 = 100 - 64$$

$$N_c^2 = 36$$

$$\underline{N_c = 6 \text{ cm}}$$

$$p = \frac{c \cdot N_c}{2}$$

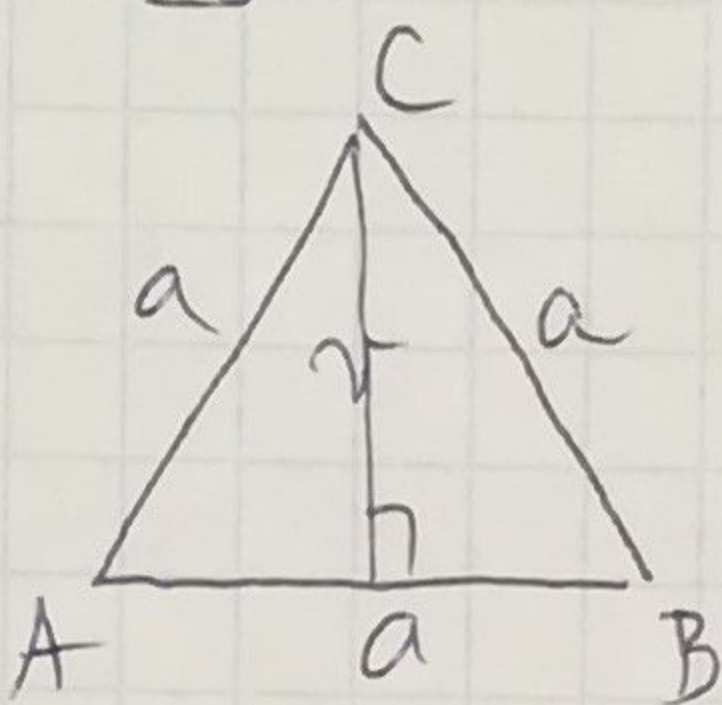
$$p = \frac{16 \cdot 6 \cdot 3}{2 \cdot 1}$$

$$\underline{p = 48 \text{ cm}^2}$$

h) Enakostranični Δ

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

$$N = ?, p = ?$$



$$N = \frac{a\sqrt{3}}{2}$$

$$N = \frac{4 \cdot \sqrt{3}}{2 \cdot 1}$$

$$\underline{N = 2\sqrt{3} \text{ cm}}$$

$$p = \frac{a^2 \sqrt{3}}{4}$$

$$p = \frac{4^2 \cdot \sqrt{3}}{4}$$

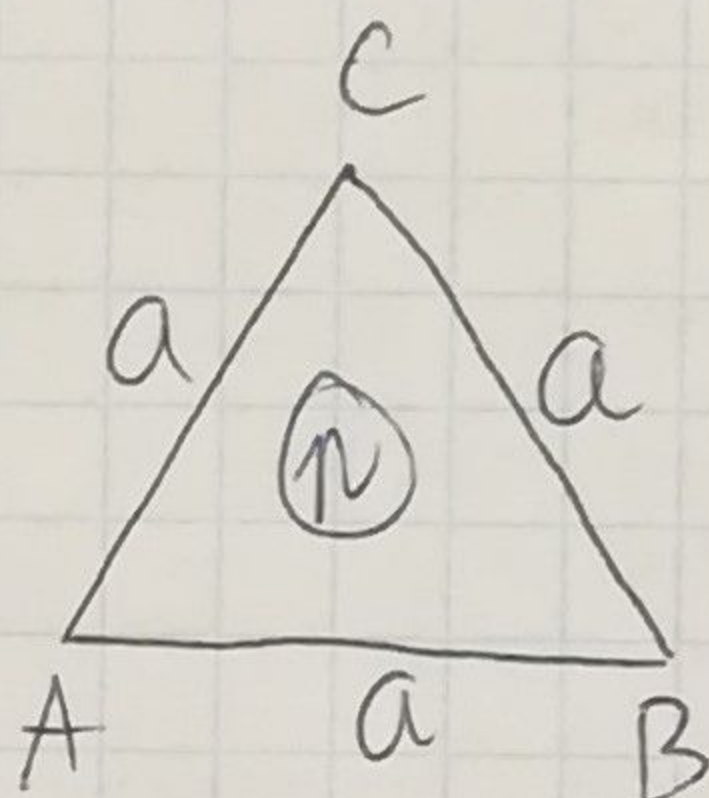
$$p = \frac{4 \cdot 4\sqrt{3}}{4 \cdot 1}$$

$$\underline{p = 4\sqrt{3} \text{ cm}^2}$$

i) Enakostr. Δ

$$p = 36\sqrt{3} \text{ cm}^2$$

$$a = ?, N = ?, \sigma = ?$$



$$p = \frac{a^2 \sqrt{3}}{4}$$

$$36\sqrt{3} = \frac{a^2 \sqrt{3}}{4}$$

$$a^2 \sqrt{3} = 36\sqrt{3} \cdot 4$$

$$a^2 \cdot \sqrt{3} = 144 \cdot \sqrt{3}$$

$$a^2 = 144$$

$$\underline{a = 12 \text{ cm}}$$

$$N = \frac{a\sqrt{3}}{2}$$

$$N = \frac{12 \cdot \sqrt{3}}{2 \cdot 1}$$

$$\underline{N = 6\sqrt{3} \text{ cm}}$$

$$\sigma = 3 \cdot a$$

$$\sigma = 3 \cdot 12$$

$$\underline{\sigma = 36 \text{ cm}}$$

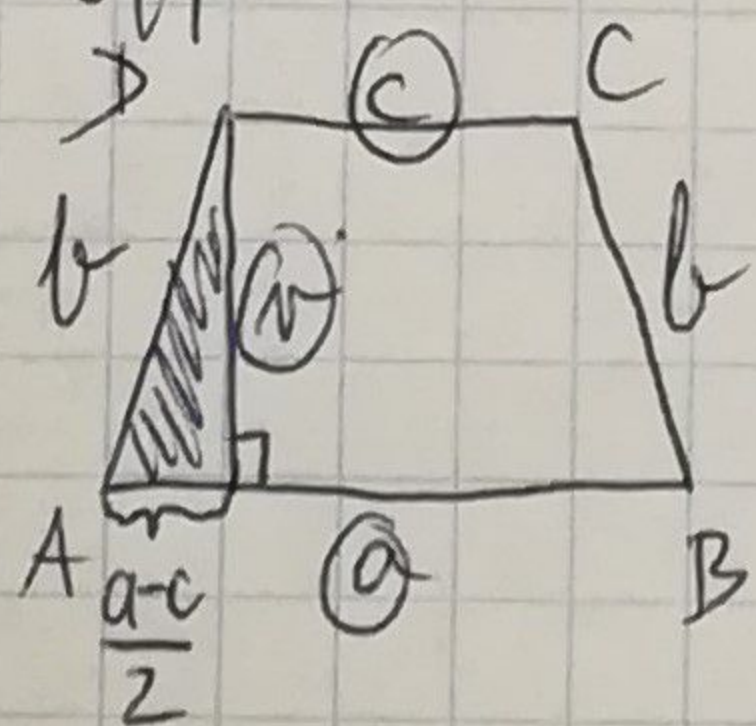
j) Enakokraki trapez

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

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

$$N = 18 \text{ cm}$$

$$b = ?, \sigma = ?, p = ?$$



$$b^2 = N^2 + \left(\frac{a-c}{2}\right)^2$$

$$b^2 = 18^2 + \left(\frac{36-12}{2}\right)^2$$

$$b^2 = 324 + \left(\frac{24}{2}\right)^2$$

$$b^2 = 324 + 12^2$$

$$b^2 = 324 + 144$$

$$b^2 = 468$$

$$\underline{b = 21,63 \text{ cm}}$$

$$\sigma = a + 2b + c$$

$$\sigma = 36 + 2 \cdot 21,63 + 12$$

$$\underline{\sigma = 91,26 \text{ cm}}$$

$$p = \frac{(a+c) \cdot N}{2}$$

$$p = \frac{(36+12) \cdot 18}{2}$$

$$p = \frac{48 \cdot 18}{2} = 432 \text{ cm}^2$$

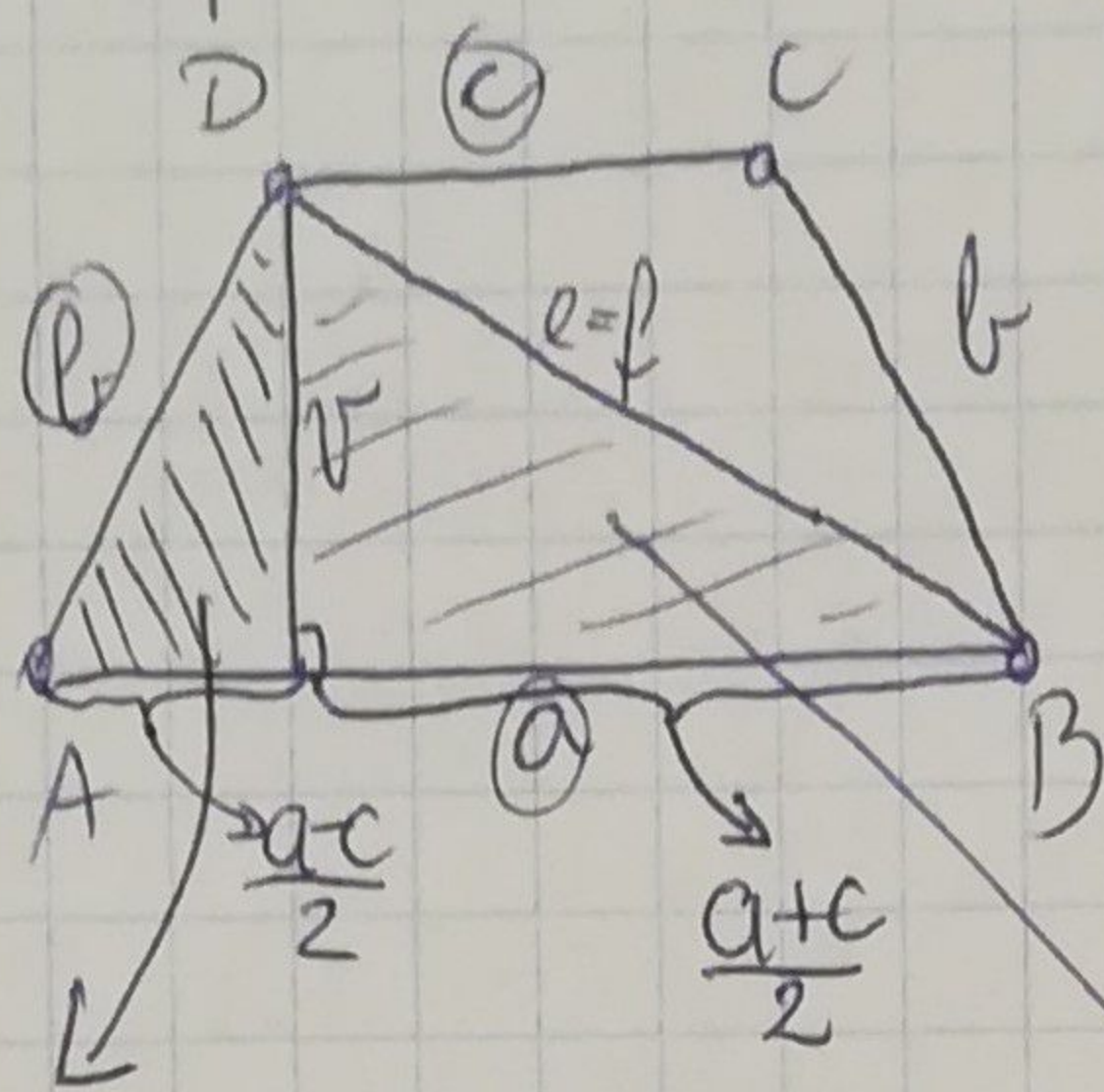
k) ~~***~~ Enakokraki trapez

$$a = 40 \text{ cm}$$

$$c = 10 \text{ cm}$$

$$b = 25 \text{ cm}$$

$$N = ?, e = ?$$



$$e = f$$

$$N^2 = b^2 - \left(\frac{a-c}{2}\right)^2$$

$$N^2 = 25^2 - \left(\frac{40-10}{2}\right)^2$$

$$N^2 = 625 - 15^2$$

$$N^2 = 625 - 225$$

$$N^2 = 400$$

$$N = 20 \text{ cm}$$

$$e^2 = N^2 + \left(\frac{a+c}{2}\right)^2$$

$$e^2 = 20^2 + \left(\frac{40+10}{2}\right)^2$$

$$e^2 = 400 + 25^2$$

$$e^2 = 400 + 625$$

$$e^2 = 1025$$

$$e = 32,02 \text{ cm}$$