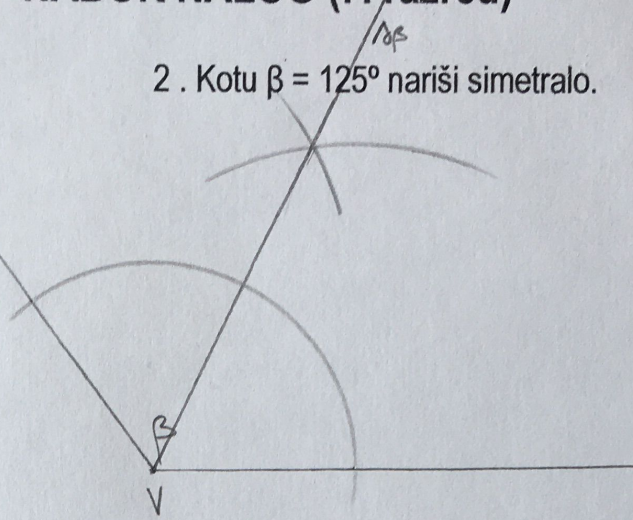
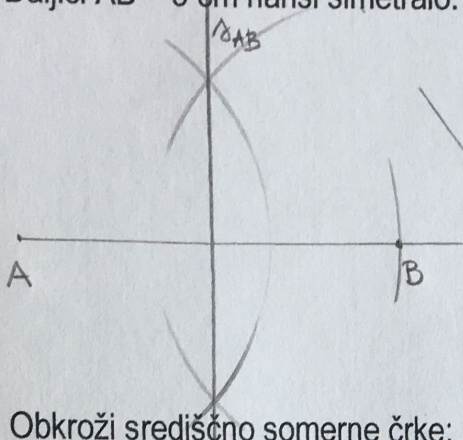


3. PREVERJANJE ZNANJA - NABOR NALOG (7. razred)

1. Daljici $AB = 5$ cm nariši simetralo.

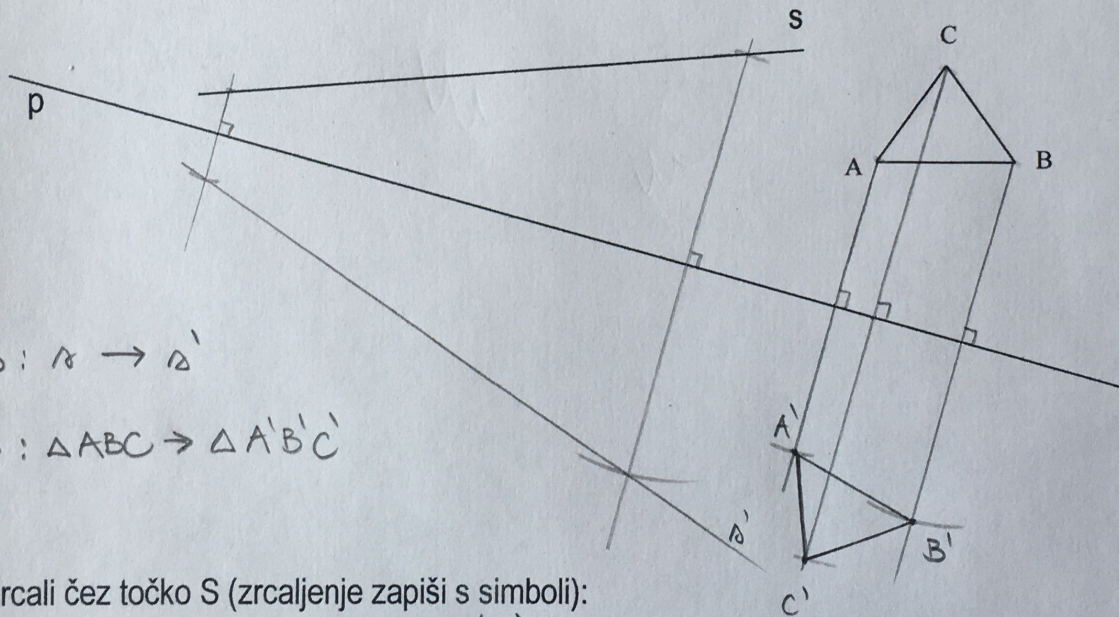
2. Kotu $\beta = 125^\circ$ nariši simetralo.



3. Obkroži središčno somerne črke:

A B G **I** **N** T **Z**

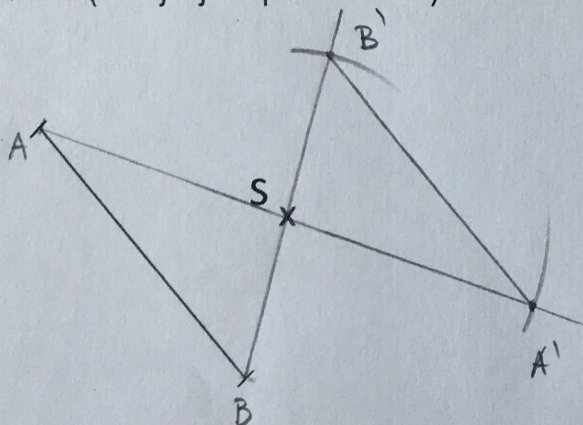
4. Prezrcali čez premico p (zrcaljenja zapiši s simboli):



$$Z_p: r \rightarrow r'$$

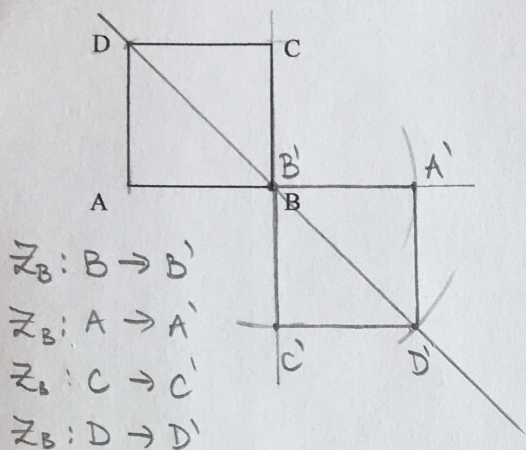
$$Z_p: \triangle ABC \rightarrow \triangle A'B'C'$$

5. Prezrcali čez točko S (zrcaljenje zapiši s simboli):

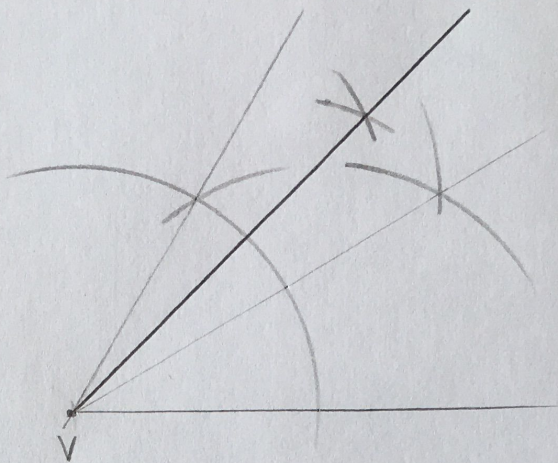


$$Z_S: \overline{AB} \rightarrow \overline{A'B'}$$

6. Kvadrat ABCD prezrcali čez točko B.
(Zrcaljenja zapiši s simboli):

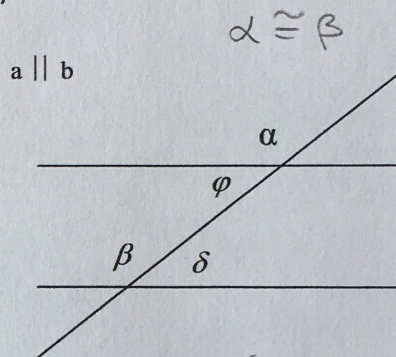


7. Brez uporabe kotomera nariši kot 45°



8. Glede na sliko izpolni preglednico: (NE MERI S KOTOMEROM!)

Kot	Velikost kota	Sokot meri	Sovršni kot meri	Izmenični kot meri
α	122°	58°	122°	122°
β	122°	58°	122°	122°
δ	58°	122°	58°	58°
φ	58°	122°	58°	58°



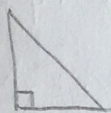
$\varphi \cong \delta$

$\beta + \delta = 180^\circ$

$\delta = 180^\circ - 122^\circ$

$\delta = 58^\circ$

9. V pravokotnem trikotniku meri en kot 25° . Koliko meri drugi ostri kot? Koliko meri posamezni zunanji kot trikotnika?



$\alpha = 90^\circ$
 $\beta = 25^\circ$
 $\gamma = ?$

$\alpha + \beta + \gamma = 180^\circ$

$90^\circ + 25^\circ + \gamma = 180^\circ$

$115^\circ + \gamma = 180^\circ$

$\gamma = 180^\circ - 115^\circ$

$\gamma = 65^\circ$

$\alpha' = 180^\circ - \alpha$

$\alpha' = 90^\circ$

$\beta' = 180^\circ - \beta$

$\beta' = 155^\circ$

$\gamma' = 180^\circ - \gamma$

$\gamma' = 115^\circ$

10. V trikotniku izračunaj notranji kot γ , če veš, da merita: $\alpha = 75^\circ$ in $\beta = 22^\circ$.

$\alpha + \beta + \gamma = 180^\circ$

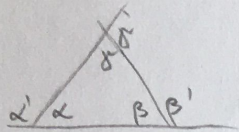
$75^\circ + 22^\circ + \gamma = 180^\circ$

$97^\circ + \gamma = 180^\circ$

$\gamma = 180^\circ - 97^\circ$

$\gamma = 83^\circ$

11. V trikotniku merita kota $\alpha = 35^\circ$ in $\beta_1 = 80^\circ$. Koliko merijo ostali notranji in zunanji koti ?



$$\begin{aligned}\alpha' &= 180^\circ - \alpha \\ \alpha' &= 180^\circ - 35^\circ \\ \alpha' &= 145^\circ\end{aligned}$$

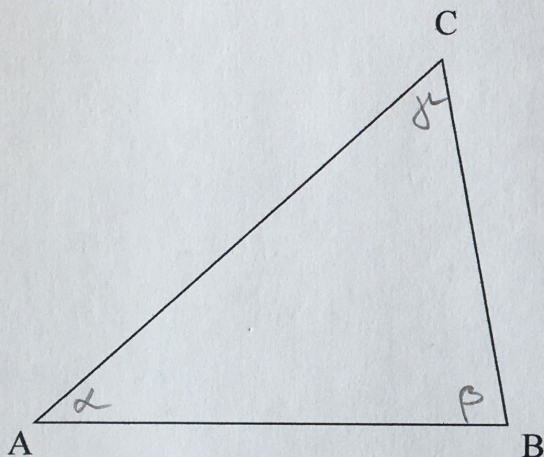
$$\begin{aligned}\beta &= 180^\circ - \beta_1 \\ \beta &= 180^\circ - 80^\circ \\ \beta &= 100^\circ\end{aligned}$$

$$\begin{aligned}\gamma &= 180^\circ - (\alpha + \beta) \\ \gamma &= 180^\circ - 135^\circ \\ \gamma &= 45^\circ\end{aligned}$$

$$\begin{aligned}\alpha + \beta &= 35^\circ + 100^\circ \\ &= 135^\circ\end{aligned}$$

$$\begin{aligned}\gamma' &= 180^\circ - \gamma \\ \gamma' &= 180^\circ - 45^\circ \\ \gamma' &= 135^\circ\end{aligned}$$

12. Dan je trikotnik $\triangle ABC$.



a) Izmeri in zapiši:

$$\alpha = 42^\circ \quad \alpha_1 = 138^\circ$$

$$\beta = 79^\circ \quad \beta_1 = 101^\circ$$

$$\gamma = 59^\circ \quad \gamma_1 = 121^\circ$$

b) Izračunaj:

$$\alpha + \beta + \gamma = 180^\circ \quad \alpha_1 + \beta_1 + \gamma_1 = 360^\circ$$

c) Glede na stranice je ta trikotnik RAZNOSTRANIČEN glede na kote pa OSTROKOTNI.

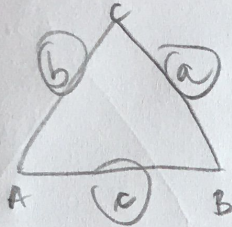
d) Primerjaj velikost notranjih kotov z dolžinami nasprotnih stranic. Kaj opaziš ?

STRANICA, KI LEŽI NASPROTI MANJŠEGA KOTA JE KRAJŠA, STRANICA, KI LEŽI NASPROTI VEČJEGA KOTA, JE DALJŠA.

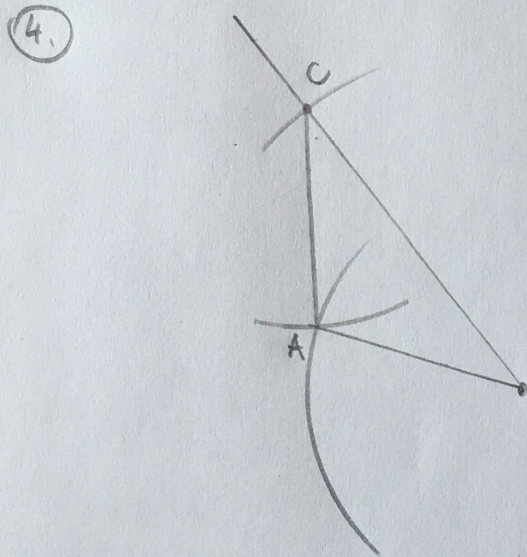
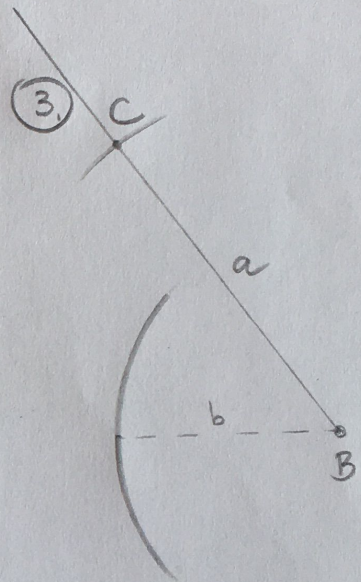
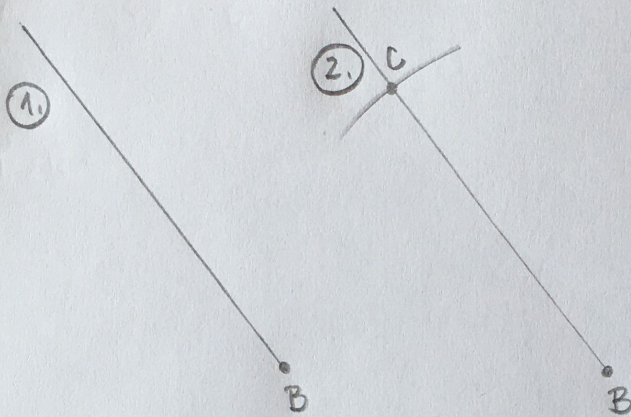
13.

- a) $a = 5\text{cm}$
 $b = 3\text{cm}$
 $c = 3\text{cm}$

SKICA:

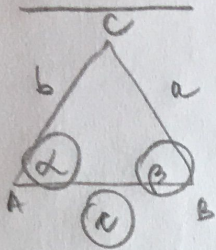


POTEK:



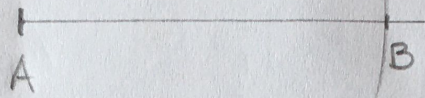
TRIKOTNIK JE ENAKOKRAK in TOPOKOTEN.

b) $c = 5\text{cm}$
 $\alpha = 90^\circ$
 $\beta = 30^\circ$

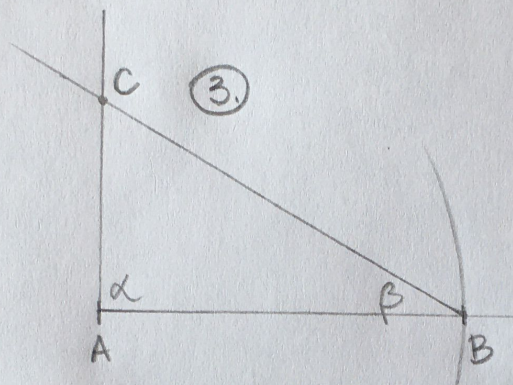
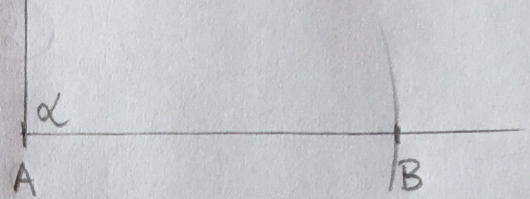


POTEK:

(1.)

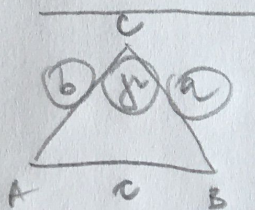


(2.)



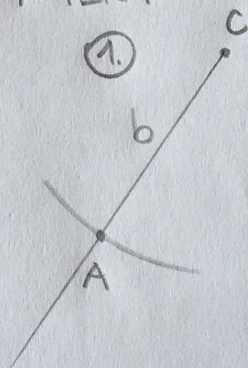
TRIKOTNIK JE
 RAZNOSTRANIČEN
 in
 PRAVOKOTNI.

c) $a = 4\text{cm}$
 $b = 3\text{cm}$
 $\gamma = 120^\circ$

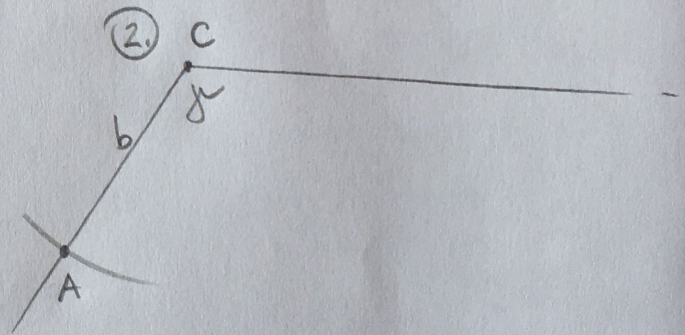


POTEK:

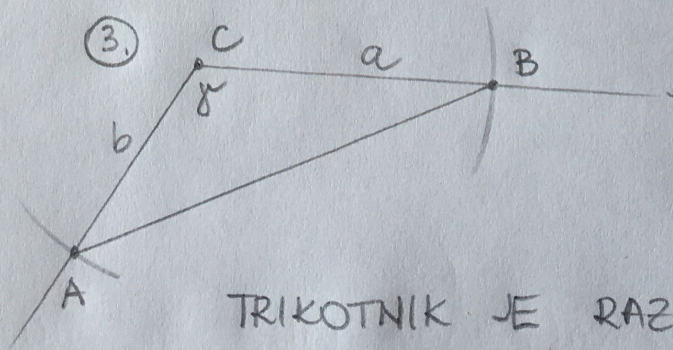
(1.)



(2.)



(3.)

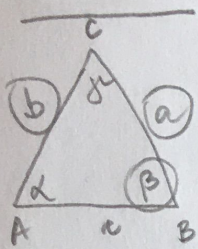


TRIKOTNIK JE RAZNOSTRANIČEN
 in
 TOPOKOTEN.

d) $a = 3,5 \text{ cm}$

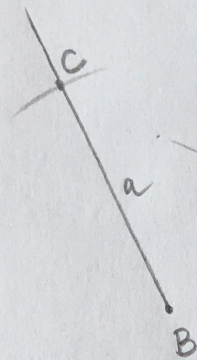
$b = 5 \text{ cm}$

$\beta = 40^\circ$

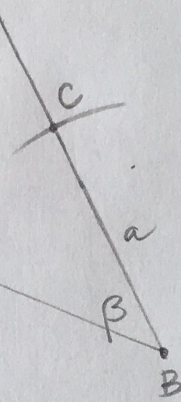


POTEK:

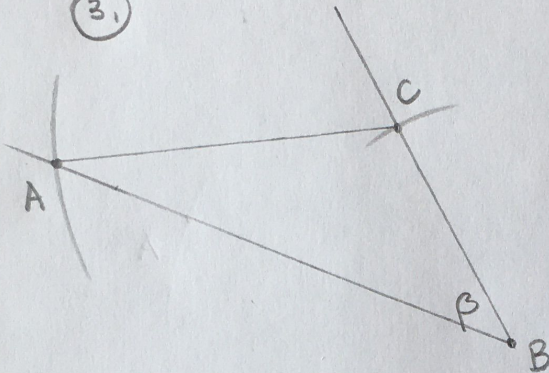
(1.)



(2.)



(3.)

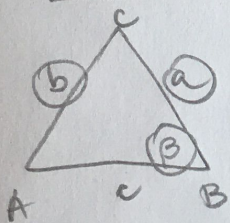


TRIKOTNIK JE
RAZNOSTRANIČEN IN
TROKOTEN.

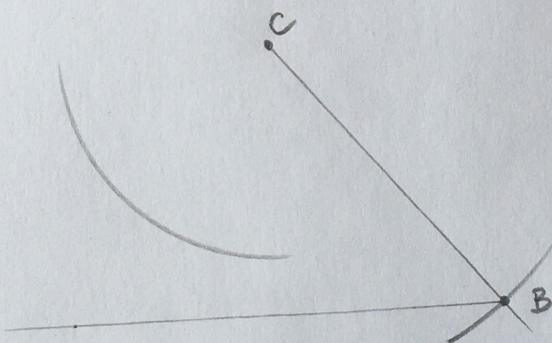
e) $a = 5 \text{ cm}$

$b = 3 \text{ cm}$

$\beta = 50^\circ$



POTEK: glej d)

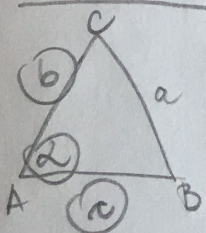


TRIKOTNIKA NI MOGOČE
NARISATI.

f) $c = 6 \text{ cm}$

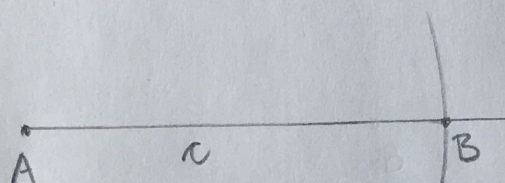
$b = 5 \text{ cm}$

$\alpha = 50^\circ$

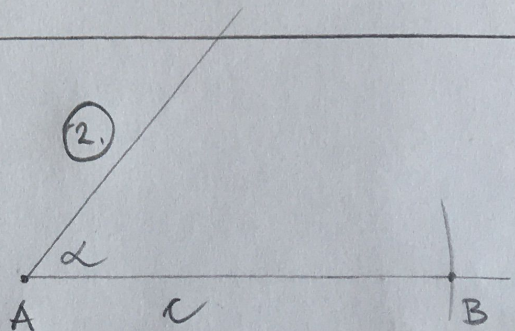


POTEK:

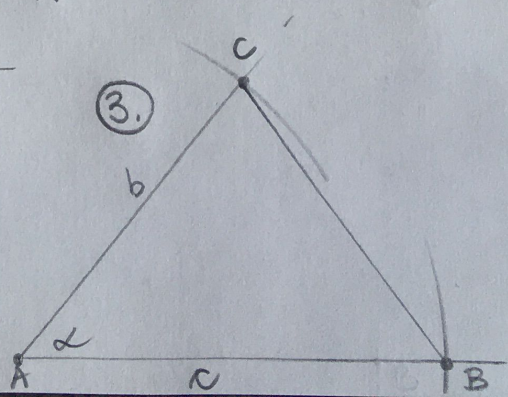
(1.)



(2.)



(3.)



13. Nariši trikotnik in ga poimenuj glede na stranice in glede na kote: RIŠI V ZVEZEK!

a) $a = 5\text{ cm}$
 $b = 3\text{ cm}$
 $c = 3\text{ cm}$

b) $c = 5\text{ cm}$
 $\alpha = 90^\circ$
 $\beta = 30^\circ$

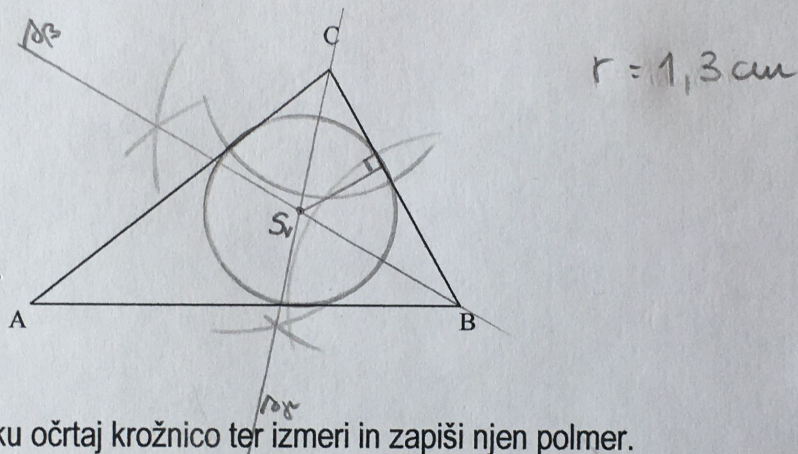
c) $a = 4\text{ cm}$
 $b = 3\text{ cm}$
 $\gamma = 120^\circ$

d) $a = 3,5\text{ cm}$
 $b = 5\text{ cm}$
 $\beta = 40^\circ$

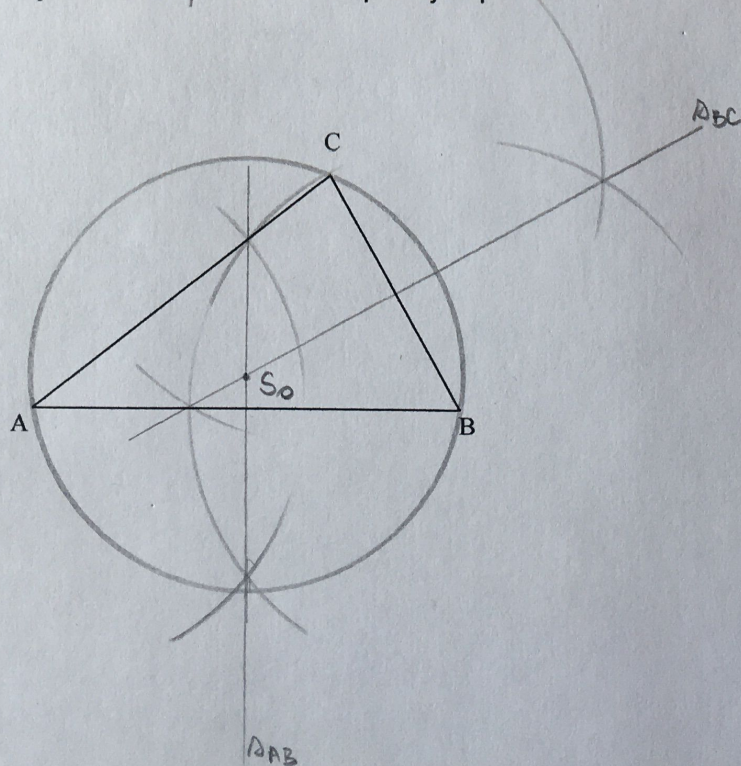
e) $a = 5\text{ cm}$
 $b = 3\text{ cm}$
 $\beta = 50^\circ$

f) $c = 6\text{ cm}$
 $b = 5\text{ cm}$
 $\alpha = 50^\circ$

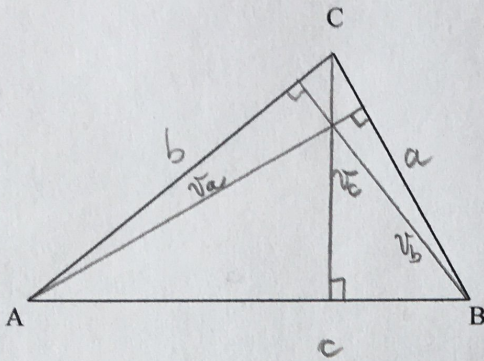
14. Narisanemu trikotniku včrtaj krožnico ter izmeri in zapiši njen polmer.



15. Narisanemu trikotniku očrtaj krožnico ter izmeri in zapiši njen polmer.



16. Narisanemu trikotniku vriši ter izmeri in zapiši vse tri višine.



$$\begin{aligned}v_a &= 5,2 \text{ cm} \\v_c &= 3,2 \text{ cm} \\v_b &= 3,7 \text{ cm}\end{aligned}$$

Od tu naprej riši v zvezek!

17. Nariši enakokrak trikotnik s podatki (ne pozabi na skico):

a) $a = 5 \text{ cm}$, $\gamma = 55^\circ$ (očrtaj mu krožnico)

b) $c = 6 \text{ cm}$, $\alpha = 40^\circ$

18. Nariši trikotnik s podatki: $\beta = 130^\circ$, $\gamma = 35^\circ$, $v_c = 2 \text{ cm}$.

19. Nariši:

a) enakostranični trikotnik

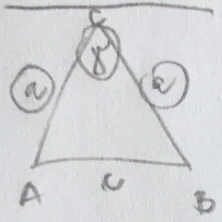
b) pravokotni, enakokraki trikotnik

c) topokotni trikotnik

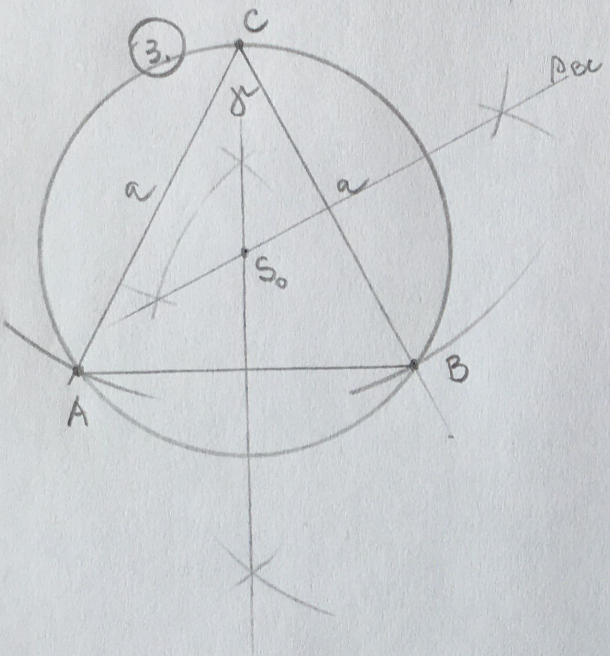
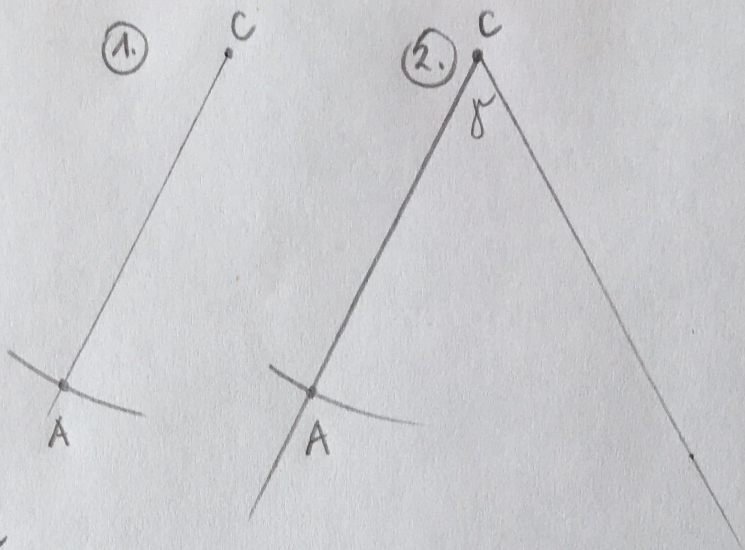
Vsakemu trikotniku vriši vse tri višine, jih označi in izmeri ter označi višinsko točko.

20. Nariši trikotnik s podatki: $\beta = 75^\circ$, $c = 5 \text{ cm}$, $t_a = 6 \text{ cm}$.

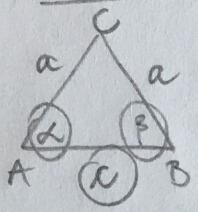
17. a) $a = 5 \text{ cm}$
 $\gamma = 55^\circ$



POTEK!

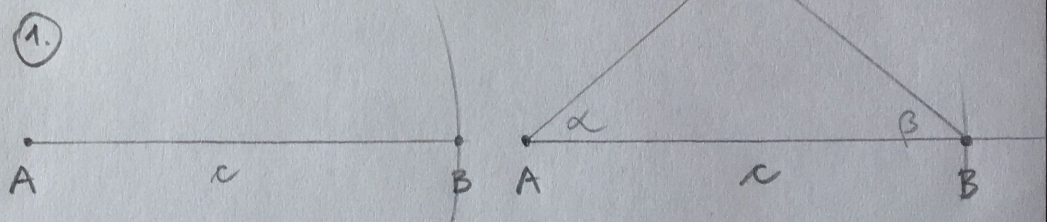


b) $c = 6 \text{ cm}$
 $\alpha = 40^\circ$



$\alpha \cong \beta$

POTEK!



18.

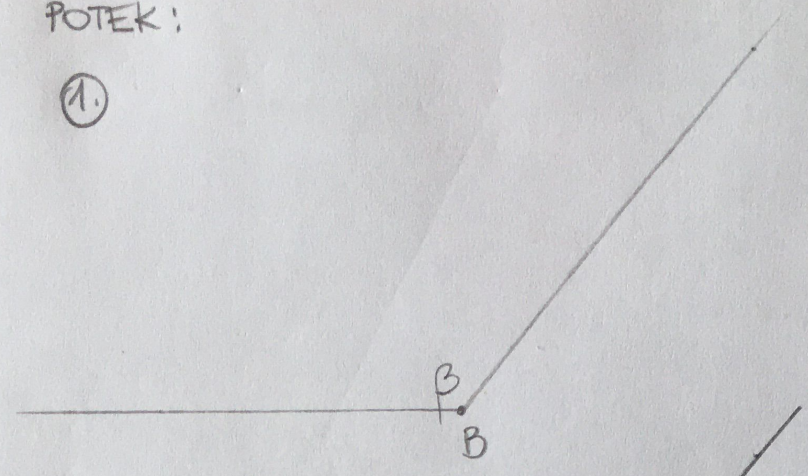
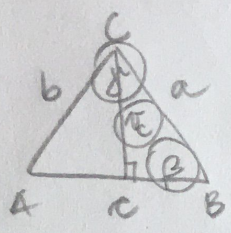
$\beta = 130^\circ$

$\gamma = 35^\circ$

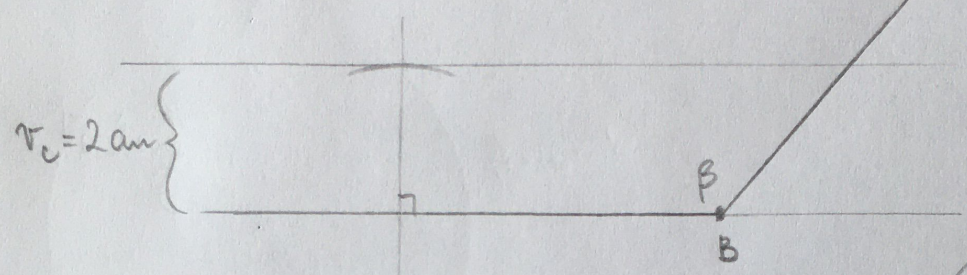
$r_c = 2 \text{ cm}$

POTEK:

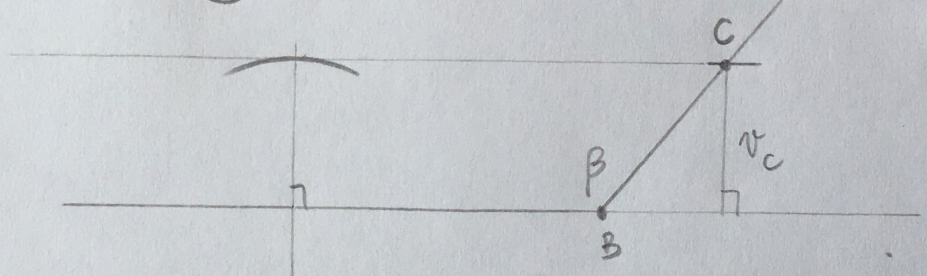
1.



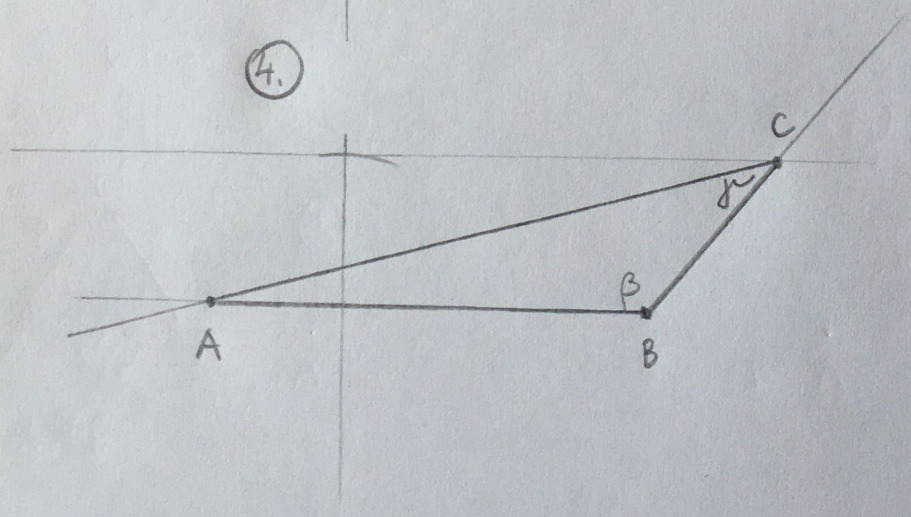
2.



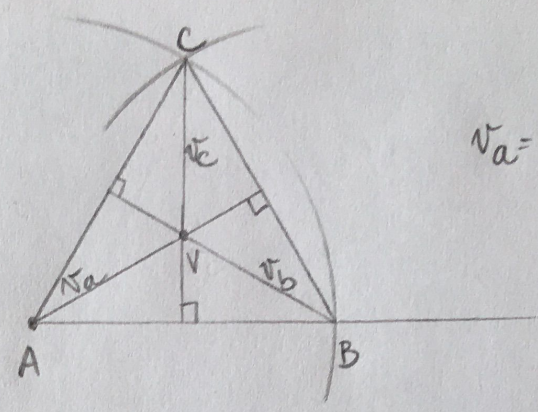
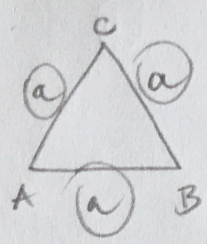
3.



4.

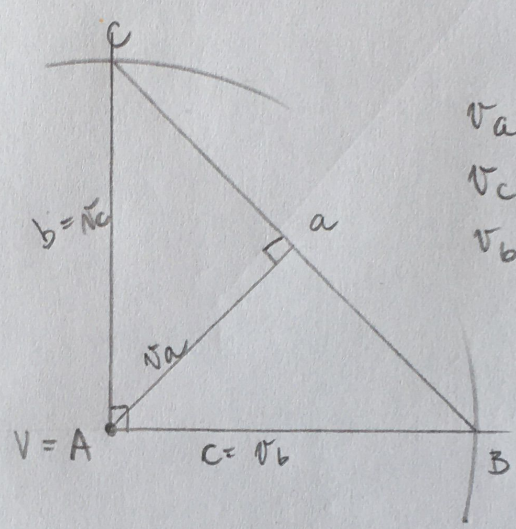
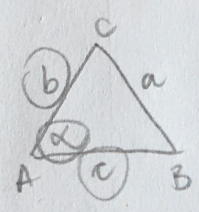


19. a) mpr. $a = 4 \text{ cm}$



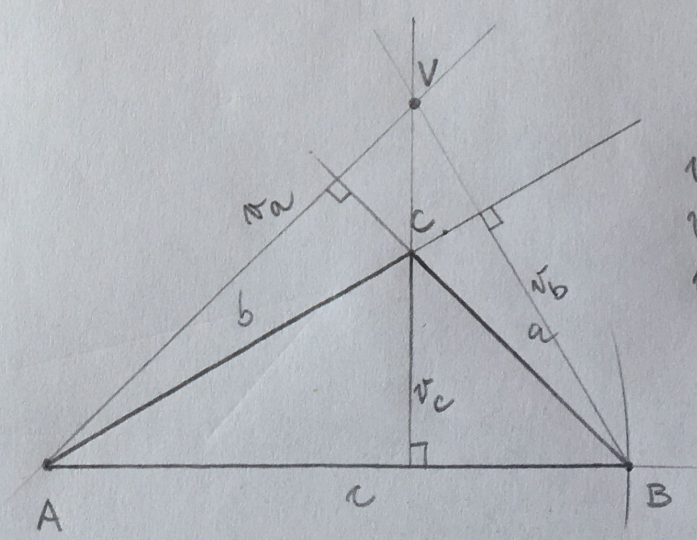
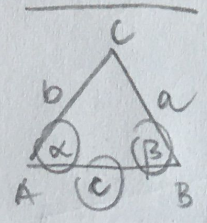
$r_a = r_b = r_c = 3,4 \text{ cm}$

b) mpr. $b = c = 5 \text{ cm}$
 $\alpha = 90^\circ$



$r_a = 3,5 \text{ cm}$
 $r_c = 5 \text{ cm}$
 $r_b = 5 \text{ cm}$

c) mpr. $c = 8 \text{ cm}$
 $\alpha = 30^\circ$
 $\beta = 45^\circ$



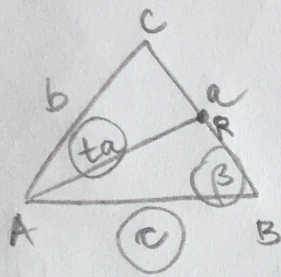
$r_c = 3 \text{ cm}$
 $r_a = 5,6 \text{ cm}$
 $r_b = 4 \text{ cm}$

20.

$$\beta = 75^\circ$$

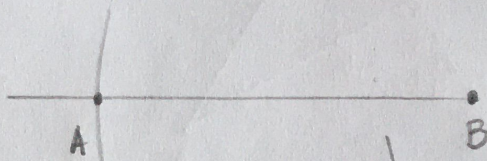
$$c = 5 \text{ cm}$$

$$t_a = 6 \text{ cm}$$

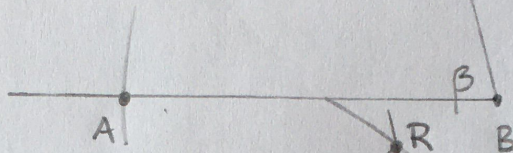


POTEK:

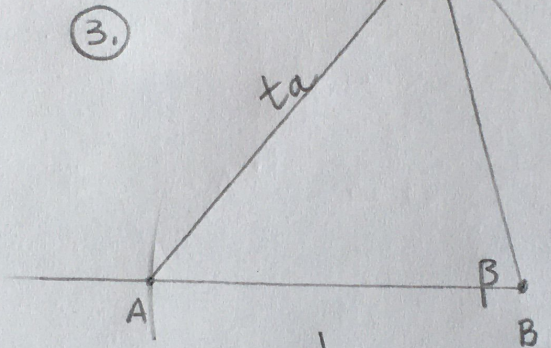
1.



2.



3.



4.

