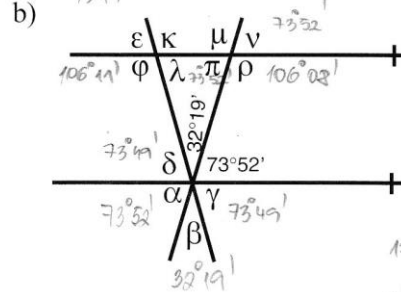
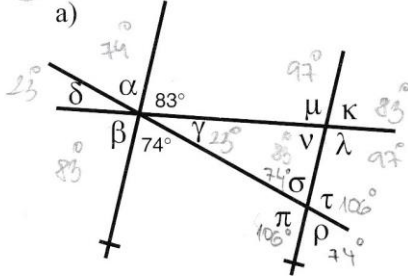


Při nejasnostech mi napište na e-mail slovackova@9zszlin.cz

Slováčková

* 16. 16. Vypočítej velikosti neznámých úhlů a zapiš je:



$$73^{\circ}52' + 32^{\circ}19' = 106^{\circ}71' = 106^{\circ}11'$$

$$179^{\circ}60' - 106^{\circ}11' = 73^{\circ}49'$$

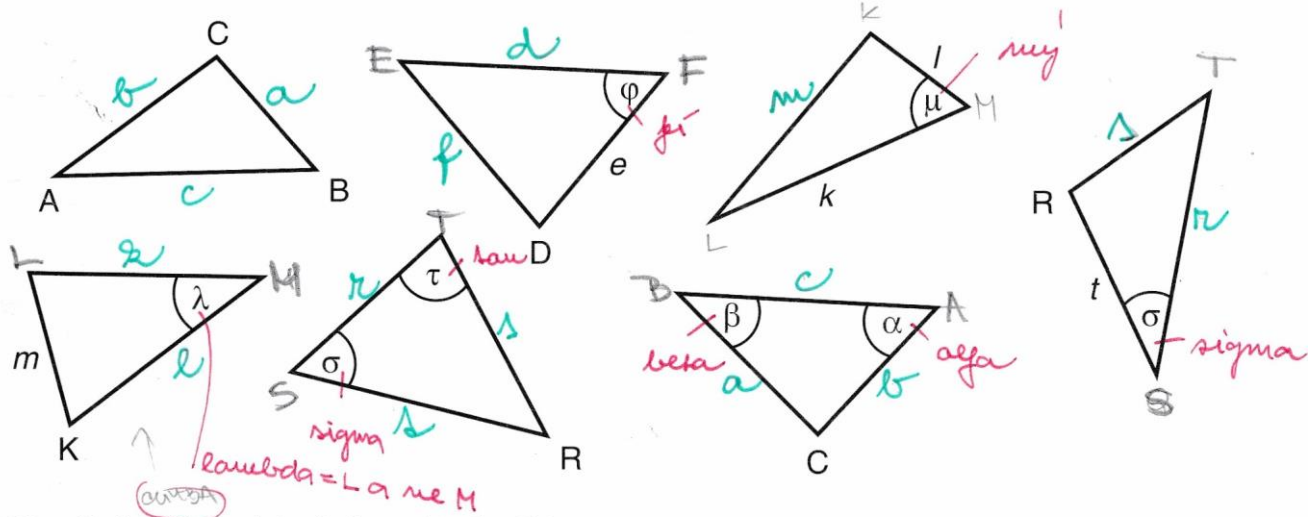
$$179^{\circ}60' - 73^{\circ}49' = 106^{\circ}11'$$

$$179^{\circ}60' - 73^{\circ}52' = 106^{\circ}08'$$

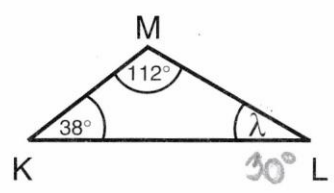
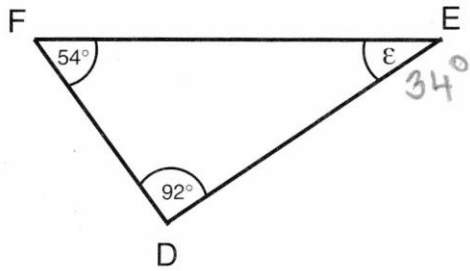
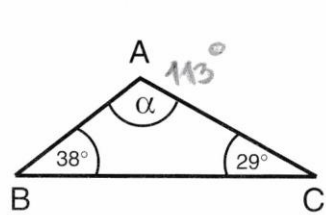
IV. RÝSUJEME

1. Úhel a trojúhelník

1. Doplň označení stran, úhlů a vrcholů.

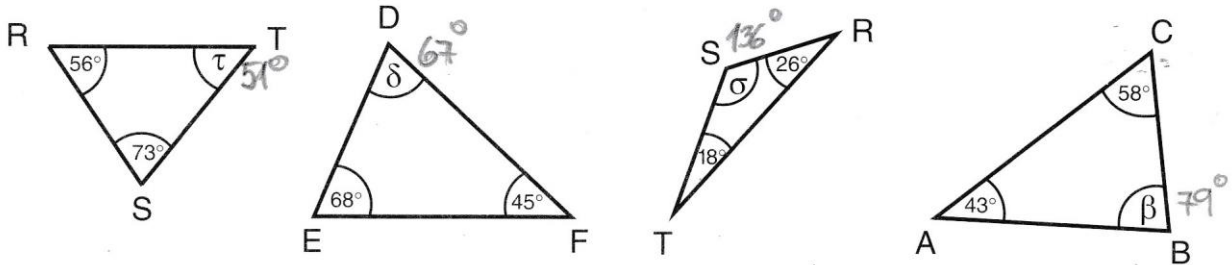


2. Vypočítej velikost zbývajících vnitřních úhlů:

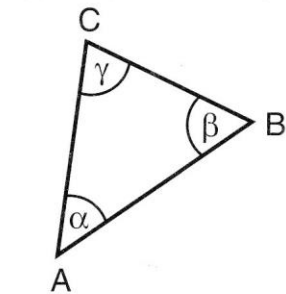


SOUČET MUSÍ BÝT 180!

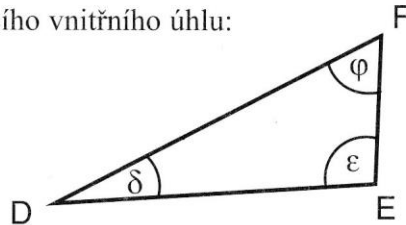
CELKEM 180°!



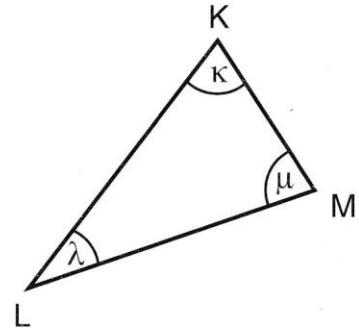
3. Vypočítej velikost zbyvajících vnitřního úhlu:



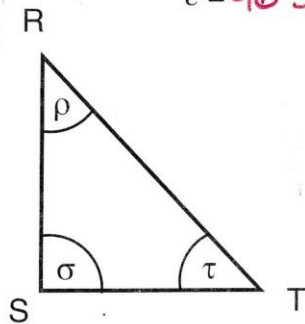
$\gamma = 72^\circ 15'$
 $\beta = 63^\circ 29'$
 $\alpha = 44^\circ 16'$



$\delta = 24^\circ 38'$
 $\phi = 58^\circ 46'$
 $\epsilon = 96^\circ 36'$



$\kappa = 73^\circ 21'$
 $\lambda = 33^\circ 18'$
 $\mu = 73^\circ 21'$

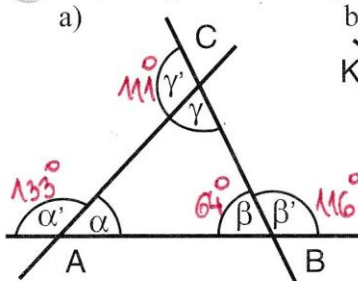


$\rho = 42^\circ 26'$
 $\tau = 47^\circ 34'$
 $\sigma = 90^\circ$

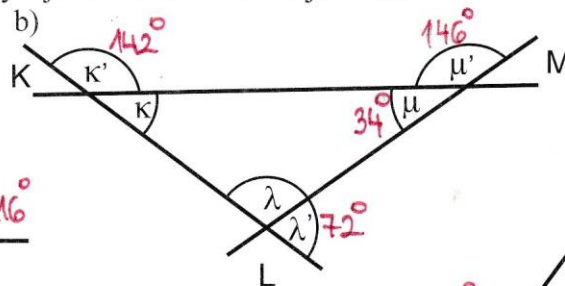
4. Je možné, aby trojúhelník měl dané velikosti vnitřních úhlů? Svou odpověď zdůvodni.

- a) $72^\circ; 34^\circ; 74^\circ$ ano 180° b) $52^\circ 18'; 48^\circ 24'; 79^\circ 18'$ 180° ano
 $56^\circ; 28^\circ; 97^\circ$ 181° ne $123^\circ 23'; 42^\circ 58'; 13^\circ 39'$ $178^\circ 120' \Rightarrow 180^\circ$ ano
 $111^\circ; 32^\circ; 73^\circ$ 216° ne $32^\circ 35'; 84^\circ 19'; 63^\circ 07'$ $179^\circ 61' \Rightarrow 180^\circ$ ano
 $45^\circ; 70^\circ; 65^\circ$ 180° ano $95^\circ 46'; 73^\circ 27'; 10^\circ 47'$ $178^\circ 120' \Rightarrow 180^\circ$ ano

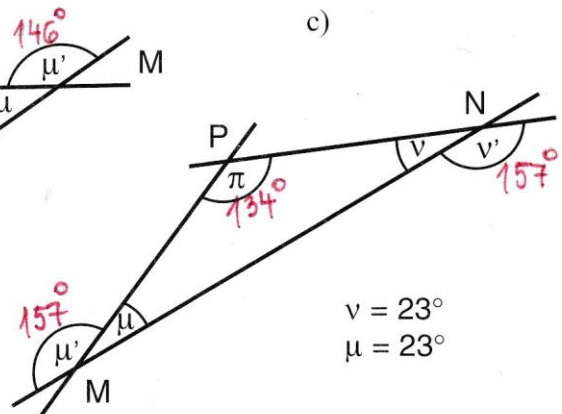
5. Dopačítej velikosti zbyvajících vnitřních a vnějších úhlů:



$\alpha = 47^\circ$
 $\gamma = 69^\circ$



$\lambda = 108^\circ$
 $\kappa = 38^\circ$

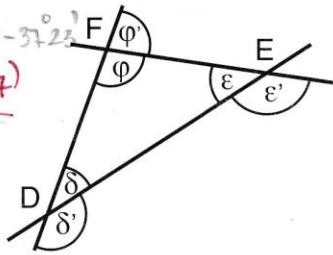


$\nu = 23^\circ$
 $\mu = 23^\circ$

$$\varphi' = 179^\circ 60' - 101^\circ 18' = \underline{78^\circ 42'}$$

$$\varepsilon' = 179^\circ 60' - 41^\circ 19' = \underline{138^\circ 41'}$$

$$\delta' = 179^\circ 60' - 37^\circ 23' = \underline{142^\circ 37'}$$



$$\delta = 37^\circ 23'$$

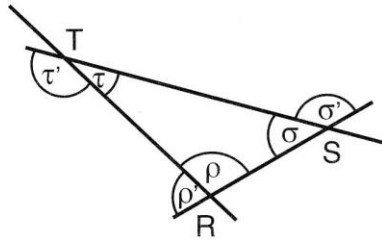
$$\varepsilon = 41^\circ 19'$$

$$\varphi = 179^\circ 60' - 78^\circ 42' = \underline{101^\circ 18'}$$

$$\gamma' = 179^\circ 60' - 27^\circ 47' = \underline{152^\circ 13'}$$

$$\rho' = 179^\circ 60' - 106^\circ 52' = \underline{73^\circ 08'}$$

$$\delta' = 179^\circ 60' - 45^\circ 21' = \underline{134^\circ 39'}$$



$$\rho = 106^\circ 52'$$

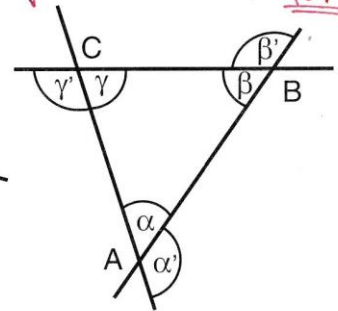
$$\tau = 27^\circ 47'$$

$$\delta = 179^\circ 60' - 134^\circ 39' = \underline{45^\circ 21'}$$

$$\alpha' = 179^\circ 60' - 2^\circ 05' = \underline{177^\circ 55'}$$

$$\beta' = 179^\circ 60' - 105^\circ 21' = \underline{74^\circ 39'}$$

$$\gamma' = 179^\circ 60' - 72^\circ 34' = \underline{107^\circ 26'}$$

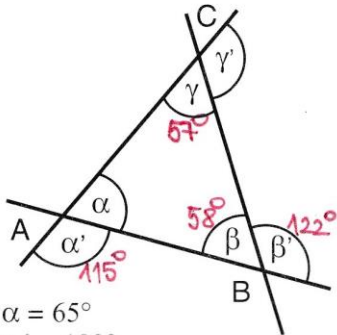


$$\beta = 105^\circ 21'$$

$$\gamma = 72^\circ 34' > 177^\circ 55'$$

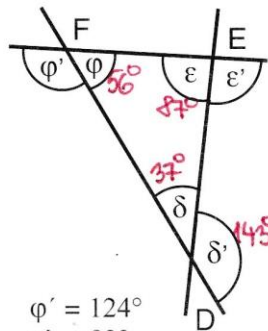
$$\alpha = 179^\circ 60' - 177^\circ 55' = \underline{2^\circ 05'}$$

6. Dopačítej veličnosti zbývajících vnitřních a vnějších úhlů:



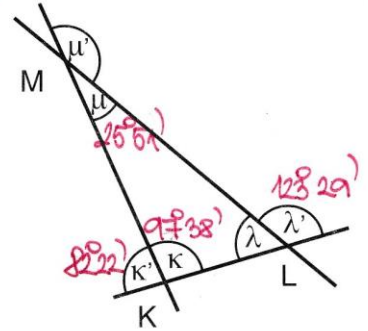
$$\alpha = 65^\circ$$

$$\gamma' = 123^\circ$$



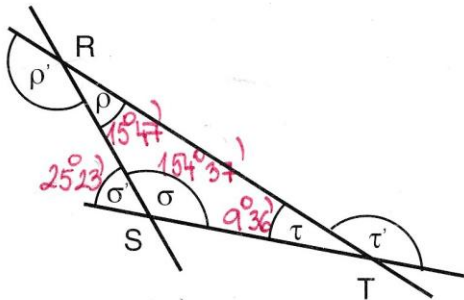
$$\varphi' = 124^\circ$$

$$\varepsilon' = 93^\circ$$



$$\lambda = 56^\circ 31'$$

$$\mu' = 154^\circ 09'$$



$$\rho' = 164^\circ 13'$$

$$\tau' = 170^\circ 24'$$

$164^\circ 13' + 170^\circ 24' = 334^\circ 37'$