

A-9. Doplňte tabulky.

a)

α	84°	$131^\circ 18'$
β	$54^\circ 18'$	$76^\circ 31'$
$\alpha + \beta$	$138^\circ 18'$	$207^\circ 49'$
$\alpha - \beta$	$29^\circ 42'$	$54^\circ 47'$

$$\begin{array}{r} 84^\circ 00' \\ + 54^\circ 18' \\ \hline 138^\circ 18' \end{array} \quad \begin{array}{r} 131^\circ 18' \\ + 76^\circ 31' \\ \hline 207^\circ 49' \end{array}$$

$$\begin{array}{r} 83^\circ 60' \\ - 54^\circ 18' \\ \hline 29^\circ 42' \end{array} \quad \begin{array}{r} 130^\circ 78' \\ - 76^\circ 31' \\ \hline 54^\circ 47' \end{array}$$

b)

γ	74°	$111^\circ 26'$
δ	$47^\circ 22'$	$85^\circ 43'$
$\gamma + \delta$	$121^\circ 22'$	$197^\circ 09'$
$\gamma - \delta$	$26^\circ 38'$	$25^\circ 43'$

$$\begin{array}{r} 74^\circ 00' \\ + 47^\circ 22' \\ \hline 121^\circ 22' \end{array} \quad \begin{array}{r} 111^\circ 26' \\ + 85^\circ 43' \\ \hline 196^\circ 69' = 197^\circ 06' \end{array}$$

$$\begin{array}{r} 73^\circ 60' \\ - 47^\circ 22' \\ \hline 26^\circ 38' \end{array} \quad \begin{array}{r} 110^\circ 86' \\ - 85^\circ 43' \\ \hline 25^\circ 43' \end{array}$$

A-10. Doplňte znak $<$, $=$, $>$ tak, aby zápis byl **pravdivý**.

a) $90^\circ < 5\ 800'$

$$\begin{array}{r} 90 \\ \cdot 60 \\ \hline 5400' < 5800' \end{array}$$

b) $630' < 10^\circ 50'$

$$\begin{array}{r} 10 \\ \cdot 60 \\ \hline 600 \\ + 50 \\ \hline 650' \end{array}$$

c) $420' > 4^\circ 20'$

$$\begin{array}{r} 4 \\ \cdot 60 \\ \hline 240 \\ + 20 \\ \hline 260' \end{array}$$

d) $11^\circ 30' < 700'$

$$\begin{array}{r} 11 \\ \cdot 60 \\ \hline 660 \\ + 30 \\ \hline 690' \end{array}$$

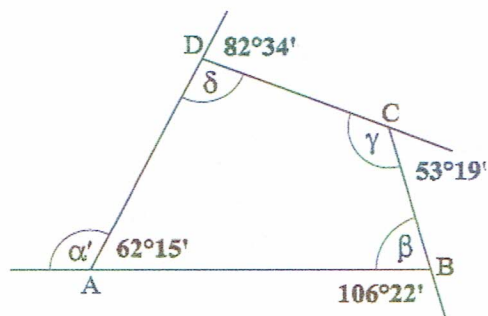
e) $135' = 2^\circ 15'$

$$\begin{array}{r} 2 \\ \cdot 60 \\ \hline 120 \\ + 15 \\ \hline 135' \end{array}$$

f) $7\ 000' > 116^\circ 30'$

$$\begin{array}{r} 116 \\ \cdot 60 \\ \hline 6960 \\ + 30 \\ \hline 6990' \end{array}$$

A-11. Vypočítejte **velikosti úhlů** vyznačených na obrázku.



$$\alpha': \begin{array}{r} 179^\circ 60' \\ - 62^\circ 15' \\ \hline 117^\circ 45' \end{array}$$

$$\beta: \begin{array}{r} 179^\circ 60' \\ - 106^\circ 22' \\ \hline 73^\circ 38' \end{array}$$

$$\delta: \begin{array}{r} 179^\circ 60' \\ - 82^\circ 34' \\ \hline 97^\circ 26' \end{array}$$

$$\gamma: \begin{array}{r} 179^\circ 60' \\ - 53^\circ 19' \\ \hline 126^\circ 41' \end{array}$$

$$\alpha' = \underline{117^\circ 45'}$$

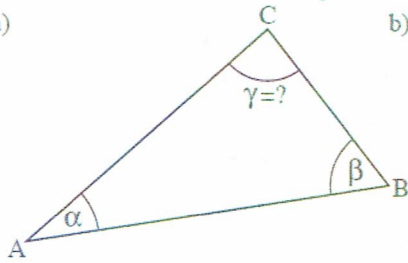
$$\beta = \underline{73^\circ 38'}$$

$$\gamma = \underline{126^\circ 41'}$$

$$\delta = \underline{97^\circ 26'}$$

A-12. Vypočítejte velikost třetího úhlu v trojúhelníku.

a)

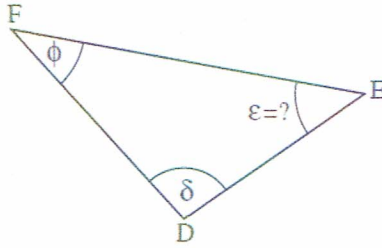


$$\alpha = 32^\circ 51', \beta = 61^\circ 08', \gamma = ?$$

$$\begin{array}{r} 32^\circ 51' \\ 61^\circ 08' \\ \hline 93^\circ 59' \end{array} \quad \begin{array}{r} 179^\circ 60' \\ - 93^\circ 59' \\ \hline 86^\circ 01' \end{array}$$

$$\gamma = 86^\circ 01'$$

b)

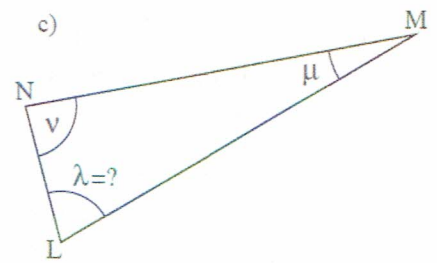


$$\phi = 27^\circ 35', \delta = 97^\circ 36', \epsilon = ?$$

$$\begin{array}{r} 27^\circ 35' \\ 97^\circ 36' \\ \hline 124^\circ 71' = 125^\circ 11' \end{array} \quad \begin{array}{r} 179^\circ 60' \\ - 125^\circ 11' \\ \hline 54^\circ 49' \end{array}$$

$$\epsilon = 54^\circ 49'$$

c)



$$\nu = 84^\circ 18', \mu = 20^\circ, \lambda = ?$$

$$\begin{array}{r} 84^\circ 18' \\ 20^\circ 00' \\ \hline 104^\circ 18' \end{array} \quad \begin{array}{r} 179^\circ 60' \\ - 104^\circ 18' \\ \hline 75^\circ 42' \end{array}$$

$$\lambda = 75^\circ 42'$$