Winkelaufgaben, Teil 2 – Lösung

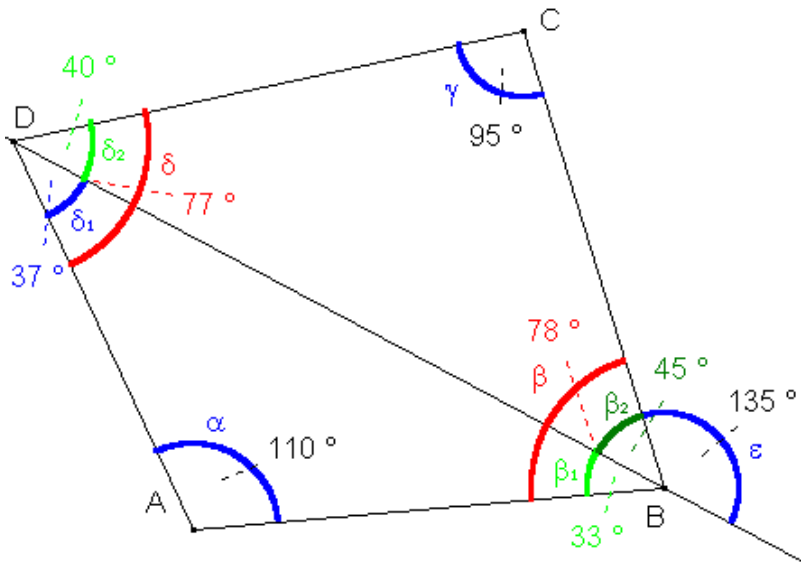
1. Lösung:

$\alpha + \beta_1 + \delta_1 = 180°$ $(WS - Satz)$
$\beta_1 = \underline{\underline{33°}}$

$\beta_2 + \varepsilon = 180°$ $(Nebenwinkel)$
$\beta_2 = \underline{\underline{45°}}$

$\beta = \beta_1 + \beta_2$
$= \underline{\underline{78°}}$

$\alpha + ß + y + \delta = 360°$ $(WS - Satz)$
$\delta = 360° - (\alpha + \beta + \gamma)$
$= \underline{\underline{77°}}$

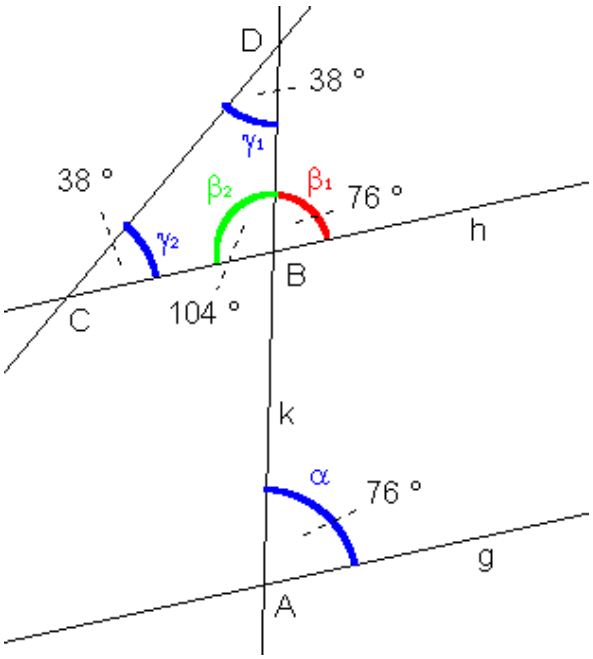


2. Lösung:

$\beta_1 = \alpha = \underline{\underline{76°}}$ $(Stufenwinkel)$

$\beta_2 + \beta_1 = 180°$ $(Nebenwinkel)$
$\beta_2 = 180° - \beta_1 = \underline{\underline{104°}}$

$\beta_2 + \gamma_1 + \gamma_2 = \underline{\underline{180°}}$ $(WS - Satz)$
$\gamma_1 + \gamma_2 = 76°$
$\gamma_1 = \gamma_2 = \underline{\underline{38°}}$



3. Lösung:

$\alpha^* + \alpha = 180°$ (*Nebenwinkel*)

$\alpha = \underline{\underline{69°}}$

$\alpha + \beta_1 + \gamma = 180°$ ($WS - Satz$)

$\gamma = \underline{\underline{59°}}$

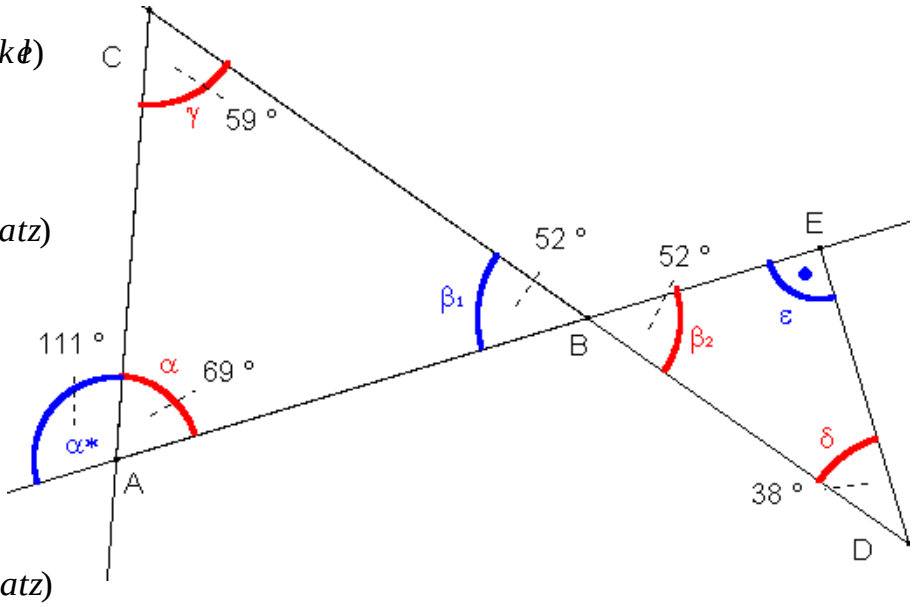
$\beta_1 = \beta_2$ (*Scheitelwinkel*)

$\beta_2 = \underline{\underline{52°}}$

$ß_2 + \delta + \varepsilon = 180°$ ($WS - Satz$)

$\delta = 180° - (\beta_2 + \varepsilon)$

$= \underline{\underline{38°}}$



4. Lösung:

$\beta_1 + \beta_2 = 180°$ (*Nebenwinkel*)

$\beta_2 = 180° - \beta_1 = \underline{\underline{85°}}$

$\beta_2 + \gamma + \delta = 180°$ ($WS - Satz$)

$\delta = 180° - (\beta_2 + \gamma) =$

$= \underline{\underline{55°}}$

$\delta \neq \varepsilon$

d.h. keine Stufenwinkel.

Also gilt $g \nparallel h$