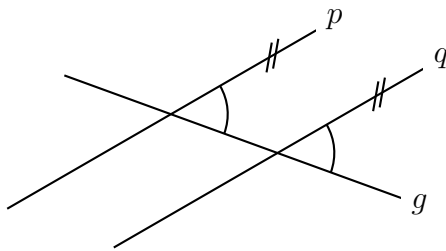
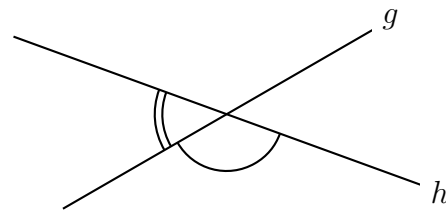


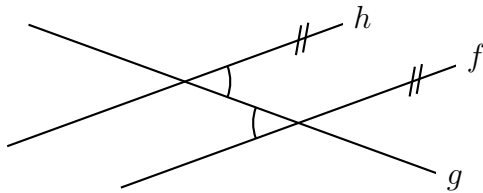
1. Wie lautet der Fachausdruck für die Winkelpaare?



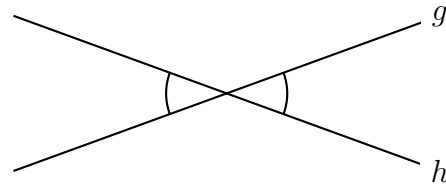
Stufenwinkel



Nebenwinkel

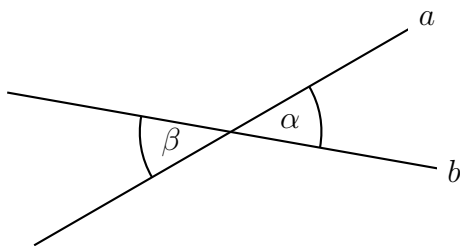


Wechselwinkel

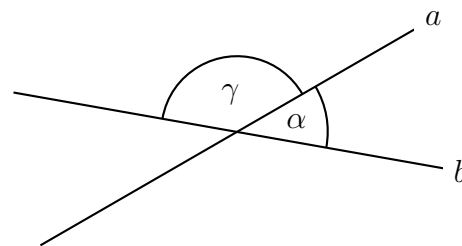


Scheitelwinkel

2. Der eingezeichnete Winkel α zwischen den sich schneidenden Geraden ist 35° .



$\beta = 35^\circ$ (Scheitelwinkel)



$\gamma = 180^\circ - 35^\circ = 145^\circ$ (Nebenwinkel)

3. (a)
- $\gamma = 180^\circ - 138^\circ = 42^\circ$ (Nebenwinkel von α)
 - $\beta = \gamma = 42^\circ$ (Wechselwinkel von γ oder Nebenwinkel von δ)
 - $\delta = \alpha = 138^\circ$ (Wechselwinkel von α)
- (b)
- $\varepsilon = 226^\circ - 180^\circ = 46^\circ$ (Stufenwinkel)
 - $\omega = \varepsilon = 46^\circ$ (Wechselwinkel von ε)
 - $\delta = 180^\circ - \omega = 134^\circ$ (Nebenwinkel von ω)
- (c)
- $\varepsilon = 34^\circ$ (Wechselwinkel von α)
 - $\omega = 180^\circ - 34^\circ = 156^\circ$ (Nebenwinkel von α)
 - $\varphi = 90^\circ$ (Wechselwinkel eines rechten Winkels)
- (d)
- $\varphi = 90^\circ + 27^\circ = 117^\circ$ (Wechselwinkel)
4. (a) $110^\circ + 2\alpha = 180^\circ \Rightarrow \alpha = 35^\circ$
- (b) $2\omega + 90^\circ + \omega = 180^\circ \Rightarrow 3\omega = 90^\circ \Rightarrow \omega = 30^\circ$
- (c) $\varepsilon + 4\varepsilon = 180^\circ \Rightarrow 5\varepsilon = 180^\circ \Rightarrow \varepsilon = 36^\circ$
5. (a) $60^\circ + \omega + 80^\circ = 180^\circ \Rightarrow \omega = 40^\circ$
- (b) $\alpha = 35^\circ + 75^\circ = 110^\circ$