Sinussatz

Erklärung: A_Δ = *Dreiecksfläche*

1

a) $\gamma = 96^0 40'$; $b = 125.8\ cm$; $c = 130{,}8\ cm$ $\quad A_\Delta = 1499.8\ cm^2$

b) $\gamma = 120^0$; $a = 24{,}5\ cm$; $b = 12{,}3\ cm$ $\quad A_\Delta = 130{,}1\ cm^2$

c) $\gamma = 78^0 9' 54''$; $c = 49{,}81\ m$; $\beta = 27^0 30' 6''$ $\quad A_\Delta = 563{,}5\ m^2$

d) $\alpha = 33^0 55' 9''$; $\gamma = 133^0 29' 51''$; $c = 37{,}96\ dm$ $\quad A_\Delta = 120{,}74\ dm^2$

e) $b = 55\ cm$; $\gamma = 44^0 55' 40''$; $\alpha = 39^0 52' 6''$; $\beta = 95^0 12' 14''$ $\quad A_\Delta = 687{,}5\ cm^2$

f) $c = 5{,}3\ m$; $b = 6{,}0\ m$; $\gamma = 12^0 36' 8''$; $\beta = 14^0 13' 52''$; $A_\Delta = 7{,}19\ m^2$

g) $\alpha = 55^0$; $\beta = 38^0 39' 36''$; $\gamma = 86^0 20' 25''$

$a = 6{,}4\ cm$; $b = 4{,}88\ cm$; $c = 7{,}8\ cm$; $A_\Delta = 15{,}6\ cm^2$

h) $\gamma = 38^0 26' 27''$; $c = 80{,}9\ cm$; $\beta = 94^0 43' 34''$; $b = 129{,}7\ cm$; $A_\Delta = 3825{,}3\ cm^2$

i) $\gamma = 16^0 40' 22''$; $\beta = 140^0 9' 38''$

$a = 39{,}73\ cm$; $b = 64{,}7\ cm$; $c = 28{,}98\ cm$; $A_\Delta = 368{,}8\ cm^2$

k) $\alpha = 64^0 38' 4''$; $\beta = 59^0 21' 56''$; $a = 4{,}8\ dm$; $b = 4{,}6\ dm$; $c = 4{,}4\ cm$; $A_\Delta = 9{,}14\ dm^2$

l) $\gamma = 124^0 9' 60''$; $\beta = 19^0 21' 21''$; $a = 86.1\ cm$; $c = 119.83\ cm$; $A_\Delta = 1709.8\ cm^2$

m) $\beta = 42^0 31'$; $a = 7.42\ m$; $b = 5.09\ m$; $c = 6{,}3\ m$; $A_\Delta = 15{,}87\ m^2$

Bestimme die Fläche des Dreiecks

2 **a)** $F_\Delta = 94{,}59\ cm^2$ **b)** $F_\Delta = 2777{,}86\ m^2$ **c)** $F_\Delta = 22{,}312\ cm^2$

Kosinussatz

3

a) $a = 105{,}94\ cm$; $\gamma = 66^0 4' 51''$; $\beta = 32^0 45' 9''$; $A_\Delta = 2808{,}3\ cm^2$

b) $b = 29{,}03\ m$; $\alpha = 54^0 55' 49''$; $\gamma = 80^0 44' 11''$; $A_\Delta = 487{,}09\ m^2$

c) $c = 27{,}67\ dm$; $\alpha = 35^0 24' 58''$; $\beta = 31^0 45' 2''$; $A_\Delta = 126{,}7\ dm^2$

d) $\alpha = 44^0 42' 54''$; $\beta = 36^0 27' 3''$; $\gamma = 98^0 50' 4''$; $A_\Delta = 84485{,}5\ mm^2$

e) $a = 83{,}4\ cm$; $c = 39{,}9\ cm$; $\alpha = 149^0 16' 52''$; $\beta = 16^0 33' 8''$; $A_\Delta = 474{,}4\ cm^2$

f) $c = 31{,}6\ m$; $\beta = 118^0 30' 14''$; $b = 53{,}1\ m$

$\alpha = 29^0 59' 42''$; $\gamma = 31^0 30' 5''$; $A_\Delta = 418{,}86\ m^2$

g) $\beta = 18^0 55' 27''$; $\gamma = 23^0 14' 33''$; $a = 649{,}94\ m$; $c = 382{,}07\ m$; $A_\Delta = 40267{,}48\ m^2$

h) $a = 1.32\ cm$; $c = 4.58\ cm$; $\alpha = 14^0 26' 53''$; $\beta = 105^0 53' 7''$; $A_\Delta = 2{,}9\ cm^2$

4

a) $\beta = 80^0 10'$; $e = 44{,}38\ cm$; $f = 49{,}56\ cm$; $A_\Delta = 701{,}2\ cm^2$

b) $\beta = 108^0 20'$; $e = 31{,}32\ cm$; $f = 23{,}28\ cm$; $A_\Delta = 331{,}11\ cm^2$

c) $\beta = 105^0 26' 31''$; $\alpha = 74^0 33' 29''$; $f = 6{,}97\ m$; $A_\Delta = 30{,}97\ m^2$

d) $b = 67{,}91\ dm$; $\alpha = 40^0 57' 10$; $\beta = 139^0 2' 50$; $A_\Delta = 4139{,}6\ dm^2$

5

a) $\gamma = 98^0 30'$; $e = 44\ cm$; $f = 26{,}2\ cm$; $d = 42{,}7\ cm$; $A_\Delta = 575{,}5\ cm^2$

b) **unmöglich**