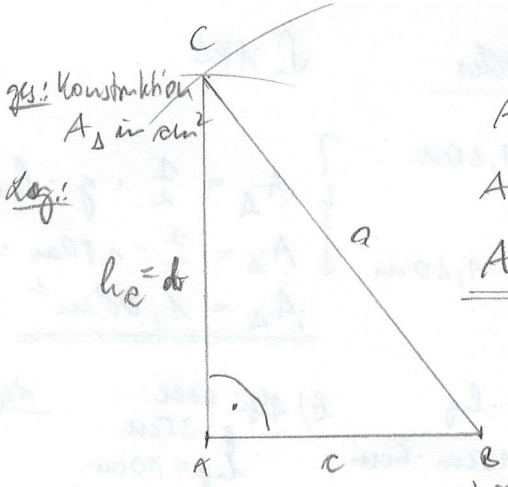
S. 143/9

a) geg.: $\triangle ABC$
$a = 6\,cm$
$b = 4{,}8\,cm$
$c = 3{,}6\,cm$

Skizze: (SWS)

ges.: Konstruktion
$A_\triangle$ in cm^2

Lsg.:



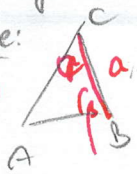
$A_\triangle = \frac{1}{2} \cdot c \cdot b$

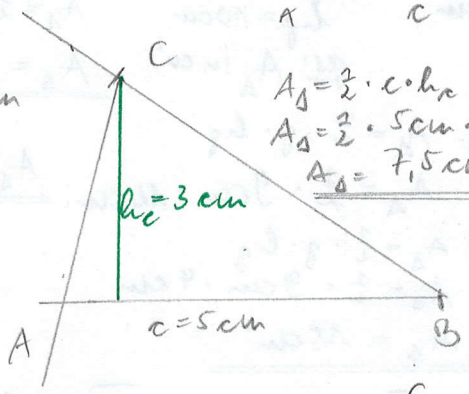
$A_\triangle = \frac{1}{2} \cdot 3{,}6\,cm \cdot 4{,}8\,cm$

$A_\triangle = 8{,}64\,cm^2$

b) geg.: $\triangle ABC$
$a = 5{,}2\,cm$
$\beta = 35°$
$\gamma = 70°$

Skizze: (WSW)





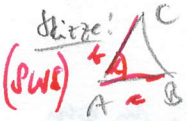
$A_\triangle = \frac{1}{2} \cdot c \cdot h_c$

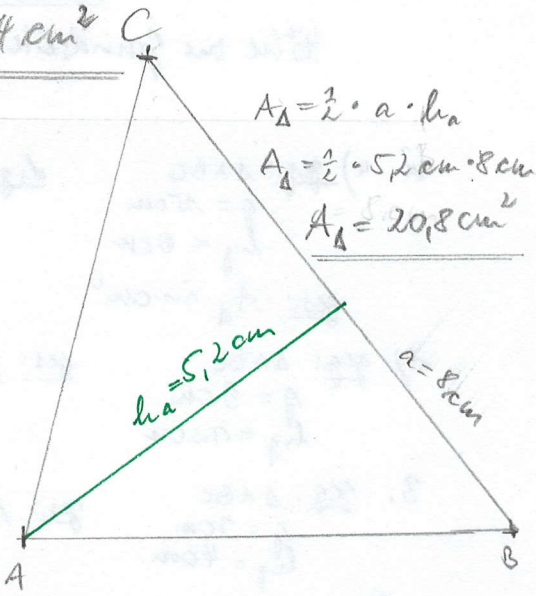
$A_\triangle = \frac{1}{2} \cdot 5\,cm \cdot 3\,cm$

$A_\triangle = 7{,}5\,cm^2$

c) geg.: $\triangle ABC$
$b = 6{,}5\,cm$
$c = 6{,}5\,cm$
$\alpha = 75°$

Skizze: (SWS)





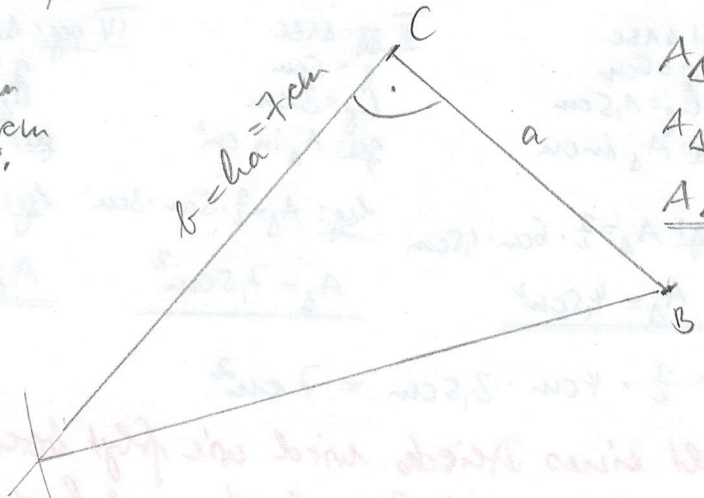
$A_\triangle = \frac{1}{2} \cdot a \cdot h_a$

$A_\triangle = \frac{1}{2} \cdot 5{,}2\,cm \cdot 8\,cm$

$A_\triangle = 20{,}8\,cm^2$

d) geg.: $\triangle ABC$
$a = 4{,}8\,cm$
$c = 8{,}5\,cm$
$\gamma = 90°$

Skizze: (SSW)

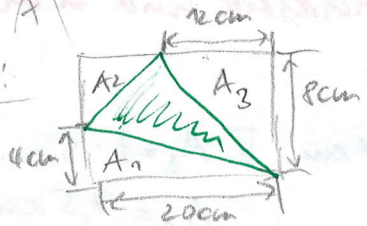


$A_\triangle = \frac{1}{2} \cdot a \cdot h_a$

$A_\triangle = \frac{1}{2} \cdot 4{,}8\,cm \cdot 7\,cm$

$A_\triangle = 16{,}8\,cm^2$

10. Skizze:



$A_{\triangle grün} = A_{Rechteck} - A_{\triangle_1} - A_{\triangle_2} - A_{\triangle_3}$

$A_1 = \frac{1}{2} \cdot 4\,cm \cdot 20\,cm = 40\,cm^2$

$A_2 = \frac{1}{2} \cdot 8\,cm \cdot 4\,cm = 16\,cm^2$

$A_3 = \frac{1}{2} \cdot 8\,cm \cdot 12\,cm = 48\,cm^2$

$A_{Rechteck} = 20\,cm \cdot 8\,cm = 160\,cm^2$

$\rightsquigarrow A_{\triangle grün} = 160\,cm^2 - 40\,cm^2 - 16\,cm^2 - 48\,cm^2$

$A_{\triangle grün} = 56\,cm^2$