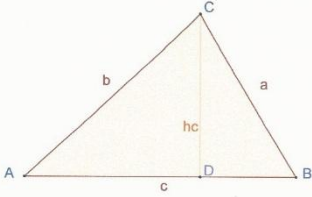
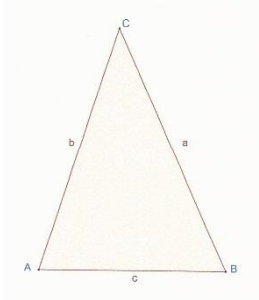
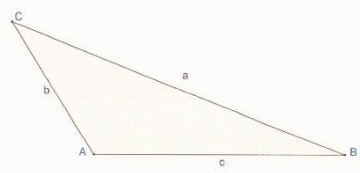


# Trigonometrie – Berechnungen in schiefwinkligen Dreiecken

Arbeitsblatt 1

*Berechnen Sie in folgenden Beispielen die gesuchten Größen!*

 <p><b>Sinussatz für die Berechnung der Winkel und der Seite b!</b></p> <p><math>h_c</math> aus dem <math>\blacktriangle</math> ADC</p>	<p><math>\blacktriangle ABC: a = 42 \text{ mm}, c = 60 \text{ mm}, \alpha = 43^\circ; \text{ gesucht: } \gamma, \beta, b, h_c \text{ und } A!</math></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 33%; padding: 5px;"><math>\frac{a}{\sin \alpha} = \frac{c}{\sin \gamma}</math></td> <td style="width: 33%; padding: 5px;"><math>\frac{a}{\sin \alpha} = \frac{b}{\sin \beta}</math></td> <td style="width: 33%; padding: 5px;"><math>A = \frac{1}{2} \cdot a \cdot c \cdot \sin \beta</math></td> </tr> <tr> <td></td> <td></td> <td style="padding: 5px;"><math>h_c = b \cdot \sin \alpha</math></td> </tr> </tbody> </table>			$\frac{a}{\sin \alpha} = \frac{c}{\sin \gamma}$	$\frac{a}{\sin \alpha} = \frac{b}{\sin \beta}$	$A = \frac{1}{2} \cdot a \cdot c \cdot \sin \beta$			$h_c = b \cdot \sin \alpha$
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		$h_c = b \cdot \sin \alpha$							
 <p><b>Sinussatz!</b></p>	<p><math>\blacktriangle ABC: b = 77 \text{ m}, \beta = 65^\circ, \gamma = 42^\circ; \text{ gesucht: } a, a, c \text{ und } A!</math></p> <p><math>\alpha = 180^\circ -</math></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 33%; padding: 5px;"><math>\frac{a}{\sin \alpha} = \frac{b}{\sin \beta}</math></td> <td style="width: 33%; padding: 5px;"><math>\frac{b}{\sin \beta} = \frac{c}{\sin \gamma}</math></td> <td style="width: 33%; padding: 5px;"><math>A = \frac{1}{2} \cdot b \cdot c \cdot \sin \alpha</math></td> </tr> </tbody> </table>			$\frac{a}{\sin \alpha} = \frac{b}{\sin \beta}$	$\frac{b}{\sin \beta} = \frac{c}{\sin \gamma}$	$A = \frac{1}{2} \cdot b \cdot c \cdot \sin \alpha$			
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 <p><b>Sinussatz!</b></p>	<p><math>\blacktriangle ABC: a = 105 \text{ m}, b = 47 \text{ m}, \alpha = 117^\circ; \text{ gesucht: } \beta, \gamma, c \text{ und } A!</math></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 33%; height: 150px;"></td> <td style="width: 33%; height: 150px;"></td> <td style="width: 33%; height: 150px;"></td> </tr> </tbody> </table>								