

Triangle Chart

For the Rapid Solution of Right-Angle and Oblique-Angle Triangles

 $C = \sqrt{A^2 - B^2}$	 $\sin D = \frac{B}{A}$	 $E = 90^\circ - D$	 $B = \sqrt{A^2 - C^2}$
 $\sin E = \frac{C}{A}$	 $D = 90^\circ - E$	 $A = \sqrt{B^2 + C^2}$	 $\tan D = \frac{B}{C}$
 $B = A \times \sin D$	 $C = A \times \cos D$	 $B = A \times \cos E$	 $C = A \times \sin E$
 $A = \frac{B}{\sin D}$	 $C = B \times \cot D$	 $A = \frac{B}{\cos E}$	 $C = B \times \tan E$
 $A = \frac{C}{\cos D}$	 $B = C \times \tan D$	 $A = \frac{C}{\sin E}$	 $B = C \times \cot E$
 $B = \frac{A \times \sin F}{\sin D}$	 $E = 180^\circ - (D + F)$	 $C = \frac{A \times \sin E}{\sin D}$	 $\tan D = \frac{A \times \sin E}{B - A \times \cos E}$
 $F = 180^\circ - (D + E)$	 $\sin E = \frac{C \times \sin D}{A}$	 $\sin F = \frac{B \times \sin D}{A}$	 $A = \frac{C \times \sin D}{\sin E}$
 $\text{Area} = \frac{A \times B \times \sin E}{2}$	 $\cos D = \frac{B^2 + C^2 - A^2}{2 \times B \times C}$	 $A = \frac{B \times \sin D}{\sin F}$	 $\cot E = \frac{A \times \csc F}{C} - \cot F$