



a.b.e.[®] Construction Chemicals

TRIGONOMETRY TABLES

OBLIQUE TRIANGLE

| to find | given | formula | OBlique triangle | | | to find | given | formula |
|---------|---------|---------------------------------|------------------|--|--|---------|---------|---------------------------------|
| A | B, C | $180^\circ - (B + C)$ | | | | C | A, B | $180^\circ - (A + B)$ |
| sin A | a, b, B | $\frac{a \sin B}{b}$ | | | | sin C | a, c, A | $\frac{c \sin A}{a}$ |
| sin A | a, c, C | $\frac{a \sin C}{c}$ | | | | sin C | b, c, B | $\frac{c \sin B}{b}$ |
| cos A | a, b, c | $\frac{b^2 + c^2 - a^2}{2bc}$ | | | | cos C | a, b, c | $\frac{a^2 + b^2 - c^2}{2ab}$ |
| tan A | a, b, C | $\frac{a \sin C}{b - a \cos C}$ | | | | tan C | a, c, B | $\frac{c \sin B}{a - c \cos B}$ |
| tan A | a, c, B | $\frac{a \sin B}{c - a \cos B}$ | | | | tan C | b, c, A | $\frac{c \sin A}{b - c \cos A}$ |
| B | A, C | $180^\circ - (A + C)$ | | | | b | a, A, B | $\frac{a \sin B}{\sin A}$ |
| sin B | a, b, A | $\frac{b \sin A}{a}$ | | | | b | a, c, B | $\sqrt{c^2 + a^2 - 2ac \cos B}$ |
| sin B | b, c, C | $\frac{b \sin C}{c}$ | | | | b | c, B, C | $\frac{c \sin B}{\sin C}$ |

RIGHT ANGLED TRIANGLES

| to find | given | formula | RIGHT ANGLED TRIANGLE | | | to find | given | formula | | | | | | |
|---------|------------|--|---|---------|-------|---------|-------|------------------------------|--|--|--|---------|--------------------|--|
| sin A | a, b | $\frac{a}{\sqrt{a^2 + b^2}}$ | | | | cos A | a, b | $\frac{b}{\sqrt{a^2 + b^2}}$ | | | | | | |
| | a, c | $\frac{a}{c}$ | | | | | a, c | $\frac{\sqrt{c^2 - a^2}}{c}$ | | | | | | |
| | b, c | $\frac{\sqrt{c^2 - b^2}}{c}$ | | | | | b, c | $\frac{b}{c}$ | | | | | | |
| tan A | a, b | $\frac{a}{b}$ | | | | cot A | a, b | $\frac{b}{a}$ | | | | | | |
| | a, c | $\frac{a}{\sqrt{c^2 - a^2}}$ | | | | | a, c | $\frac{\sqrt{c^2 - a^2}}{a}$ | | | | | | |
| | b, c | $\frac{\sqrt{c^2 - b^2}}{b}$ | | | | | b, c | $\frac{b}{\sqrt{c^2 - b^2}}$ | | | | | | |
| sec A | a, b | $\frac{\sqrt{a^2 + b^2}}{b}$ | | | | cos A | a, b | $\frac{\sqrt{a^2 + b^2}}{b}$ | | | | | | |
| | a, c | $\frac{c}{\sqrt{c^2 - a^2}}$ | | | | | a, c | $\frac{c}{a}$ | | | | | | |
| | b, c | $\frac{c}{b}$ | | | | | b, c | $\frac{c}{\sqrt{c^2 - b^2}}$ | | | | | | |
| a | b.sin A | $\frac{b \sin A}{\sqrt{1 - \sin^2 A}}$ | <table border="1"> <thead> <tr> <th>to find</th> <th>given</th> <th>formula</th> </tr> </thead> <tbody> <tr> <td>b</td> <td>a.sin A</td> <td>$\frac{a \sqrt{1 - \sin^2 A}}{\sin A}$</td> </tr> </tbody> </table> | to find | given | formula | b | a.sin A | $\frac{a \sqrt{1 - \sin^2 A}}{\sin A}$ | | | a.sin A | $\frac{a}{\sin A}$ | |
| to find | given | formula | | | | | | | | | | | | |
| b | a.sin A | $\frac{a \sqrt{1 - \sin^2 A}}{\sin A}$ | | | | | | | | | | | | |
| b.tan A | $b \tan A$ | a.tan A | $\frac{a \sqrt{1 + \tan^2 A}}{\tan A}$ | | | | | | | | | | | |