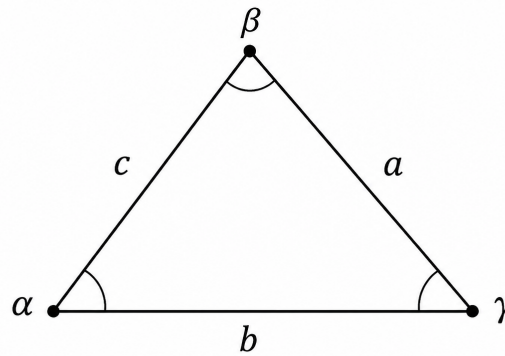
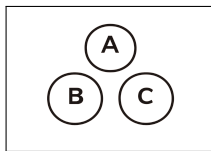


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Laws of Triangles Mollweide's Formula

A



Opposite $\alpha \rightarrow$ side a
Opposite $\beta \rightarrow$ side b
Opposite $\gamma \rightarrow$ side c

$$\alpha = 80^\circ$$

$$\beta = 40^\circ$$

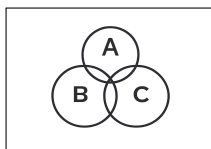
$$\gamma = 60^\circ$$

$$(a + b)/c = (\cos(80^\circ - 40^\circ)/2)/\sin(60^\circ/2)$$

$$(a + b)/c = \cos(20^\circ)/\sin(30^\circ)$$

$$(a + b)/c = 0.9397/0.5$$

$$(a + b)/c = 1.8794$$



$$(a + b)/c = \cos(1/2(\alpha - \beta))/\sin(1/2 \times \gamma)$$

$$\alpha = 95^\circ$$

$$\beta = 35^\circ$$

$$\gamma = 50^\circ$$

$$a + b/c = ?$$

?

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Laws of Triangles Mollweide's Formula

A



$$\alpha = 95^\circ$$

$$\beta = 35^\circ$$

$$\gamma = 50^\circ$$

$$a + b/c = \cos(95^\circ - 35^\circ/2)/\sin(50^\circ/2)$$

$$a + b/c = \cos(30^\circ)/\sin(25^\circ)$$

$$a + b/c = (\sqrt{3}/2)/0.4226 \approx 2.049$$