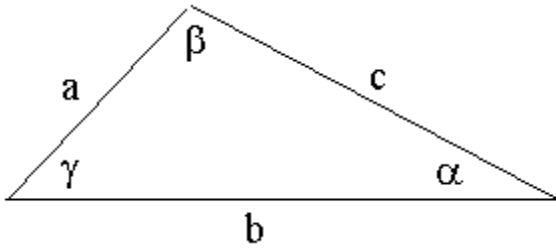


Triangle Trigonometry: The Law of Cosines

Give sides lengths to the nearest tenth and angles to the nearest tenth of a degree.



Side-Angle-Side Problems

[1] $b=12$, $\alpha = 40^\circ$, $c=14$. Find a .

[2] $a=10$, $\gamma = 50^\circ$, $b=15$. Find c .

[3] $a=24$, $\beta = 100^\circ$, $c=44$. Find b .

[4] $b=19$, $\alpha = 25^\circ$, $c=12$. Find a .

Side-Side-Side Problems

Remember to check first to see if there can be a triangle with the given lengths.

[5] $a=15$, $b=24$, $c=10$. Find α .

[6] $a=12$, $b=26$, $c=14$. Find β .

[7] $a=9$, $b=18$, $c=11$. Find γ .

[8] $a=6$, $b=18$, $c=11$. Find α .

[9] $a=22$, $b=33$, $c=29$. Find β .

[10] $a=2$, $b=4$, $c=3$. Find γ .