

Solve the following oblique triangles using law of sines or cosines. Find all missing angle measures and side measures to the nearest tenth.

1. $a=27, b=35, \angle C=71^\circ$ SAS

$c = 36.59$ $c =$ _____

$\angle A = 44.24^\circ$ $\angle A =$ _____

$\angle B = 64.76^\circ$ $\angle B =$ _____

2. $a=5, b=4, c=7$ SSS

$\angle A = 44.45^\circ$ $\angle A =$ _____

$\angle B = 34.05^\circ$ $\angle B =$ _____

$\angle C = 101.5^\circ$ $\angle C =$ _____

3. $\angle B=130^\circ, b=5.2, c=10.1$ SSA

$\angle C =$ _____ $\angle C =$ _____

$a =$ _____ $a =$ _____

$b =$ _____ $b =$ _____

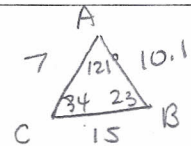
No solution!

4. $\angle C=34^\circ 58', b=7, a=15$

$\angle B = 23^\circ 24'$ $\angle B =$ _____

$\angle C = 121^\circ 38'$ $\angle C =$ _____

$c = 10.1$ $c =$ _____



$$c^2 = 7^2 + 15^2 - 2(7)(15) \cos 34^\circ 58'$$

$$c = 10.1$$

$$\frac{\sin 34^\circ 58'}{10.1} = \frac{\sin B}{7}$$

5. $\angle A=150^\circ, b=10, a=64$ SSA

$\angle B = 4.48^\circ$ $\angle B =$ _____

$\angle C = 25.52^\circ$ $\angle C =$ _____

$c = 55.15$ $c =$ _____

6. $\angle A=27^\circ 18', b=32.9, a=27.4$ SSA

$\angle B = 33^\circ 25'$ $\angle B = 146^\circ 35'$

$\angle C = 119^\circ 17'$ $\angle C = 6^\circ 7'$

$c = 52.11$ $c = 6.37$