SM 3H

2023-2024

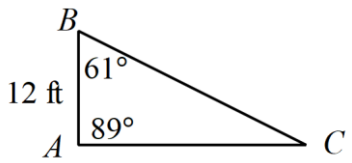
Review of Law of Sines and Cosines (7.1-7.3)

SCORE: /

Name_____ Date_____ Period_____

Solve each triangle. Round your answers to the nearest tenth. Check for the number of triangles. If there is no triangle or no second triangle, put NA in the blank.

1.



$m\angle A_1 =$ _____ $a_1 =$ _____

$m\angle B_1 =$ _____ $b_1 =$ _____

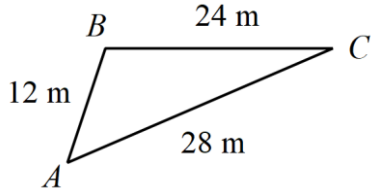
$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____

$m\angle B_2 =$ _____ $b_2 =$ _____

$m\angle C_2 =$ _____ $c_2 =$ _____

2.



$m\angle A_1 =$ _____ $a_1 =$ _____

$m\angle B_1 =$ _____ $b_1 =$ _____

$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____

$m\angle B_2 =$ _____ $b_2 =$ _____

$m\angle C_2 =$ _____ $c_2 =$ _____

3. $m\angle B = 51°, a = 9$ mi, $b = 16$ mi

$m\angle A_1 =$ _____ $a_1 =$ _____
$m\angle B_1 =$ _____ $b_1 =$ _____
$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____
$m\angle B_2 =$ _____ $b_2 =$ _____
$m\angle C_2 =$ _____ $c_2 =$ _____

4. $m\angle B = 91°, a = 24$ yd, $c = 14$ yd

$m\angle A_1 =$ _____ $a_1 =$ _____
$m\angle B_1 =$ _____ $b_1 =$ _____
$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____
$m\angle B_2 =$ _____ $b_2 =$ _____
$m\angle C_2 =$ _____ $c_2 =$ _____

5. $m\angle B = 145°, a = 29$ km, $b = 17$ km

$m\angle A_1 =$ _____ $a_1 =$ _____
$m\angle B_1 =$ _____ $b_1 =$ _____
$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____
$m\angle B_2 =$ _____ $b_2 =$ _____
$m\angle C_2 =$ _____ $c_2 =$ _____

6. $m\angle A = 26°, a = 17$ ft, $c = 26$ ft

$m\angle A_1 =$ _____ $a_1 =$ _____
$m\angle B_1 =$ _____ $b_1 =$ _____
$m\angle C_1 =$ _____ $c_1 =$ _____

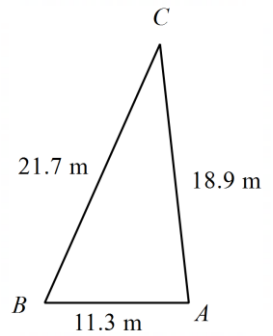
$m\angle A_2 =$ _____ $a_2 =$ _____
$m\angle B_2 =$ _____ $b_2 =$ _____
$m\angle C_2 =$ _____ $c_2 =$ _____

7. $m\angle A = 30°, m\angle B = 89°, a = 4$ yd

$m\angle A_1 =$ _____ $a_1 =$ _____
$m\angle B_1 =$ _____ $b_1 =$ _____
$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____
$m\angle B_2 =$ _____ $b_2 =$ _____
$m\angle C_2 =$ _____ $c_2 =$ _____

8.



$m\angle A_1 =$ _____ $a_1 =$ _____
$m\angle B_1 =$ _____ $b_1 =$ _____
$m\angle C_1 =$ _____ $c_1 =$ _____

$m\angle A_2 =$ _____ $a_2 =$ _____
$m\angle B_2 =$ _____ $b_2 =$ _____
$m\angle C_2 =$ _____ $c_2 =$ _____