

# 7.1 Trigonometry short version

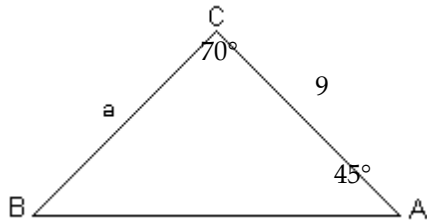
Name \_\_\_\_\_

**SHORT ANSWER.** Write the word or phrase that best completes each statement or answers the question.

**Solve the triangle.**

1)

1) \_\_\_\_\_



**Solve the triangle. Round lengths to the nearest tenth and angle measures to the nearest degree.**

2)  $A = 35^\circ$

2) \_\_\_\_\_

$B = 47^\circ$

$a = 40.5$

**Two sides and an angle (SSA) of a triangle are given. Determine whether the given measurements produce one triangle, two triangles, or no triangle at all. Solve each triangle that results. Round lengths to the nearest tenth and angle measures to the nearest degree.**

3)  $A = 30^\circ$ ,  $a = 11$ ,  $b = 22$

3) \_\_\_\_\_

4)  $B = 110^\circ$ ,  $b = 2$ ,  $a = 24$

4) \_\_\_\_\_

5)  $B = 10^\circ$ ,  $b = 2.7$ ,  $a = 5.18$

5) \_\_\_\_\_

6)  $B = 41^\circ$ ,  $a = 4$ ,  $b = 3$

6) \_\_\_\_\_

**Solve the problem.**

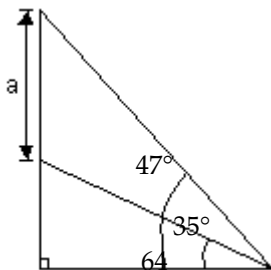
7) To find the distance AB across a river, a distance BC of 794 m is laid off on one side of the river. It is found that  $B = 106.6^\circ$  and  $C = 13.7^\circ$ . Find AB. Round to the nearest meter.

7) \_\_\_\_\_

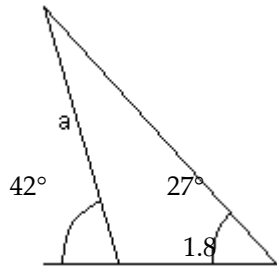
**Find a. If necessary, round your answer to the nearest hundredth.**

8)

8) \_\_\_\_\_



9)



9) \_\_\_\_\_

## Answer Key

Testname: TRIGONOMETRY 7.1 SHORT VERSION

- 1)  $B = 65^\circ$ ,  $a = 7.02$ ,  $c = 9.33$
- 2)  $C = 98^\circ$ ,  $b = 51.6$ ,  $c = 69.9$
- 3)  $B = 90^\circ$ ,  $C = 60^\circ$ ,  $c = 19.1$
- 4) no triangle
- 5)  $A_1 = 19^\circ$ ,  $C_1 = 151^\circ$ ,  $c_1 = 7.5$ ;  
 $A_2 = 161^\circ$ ,  $C_2 = 9^\circ$ ,  $c_2 = 2.4$
- 6)  $A_1 = 61^\circ$ ,  $C_1 = 78^\circ$ ,  $c_1 = 4.5$ ;  
 $A_2 = 119^\circ$ ,  $C_2 = 20^\circ$ ,  $c_2 = 1.6$
- 7) 218 meters
- 8) 23.82
- 9) 3.16