

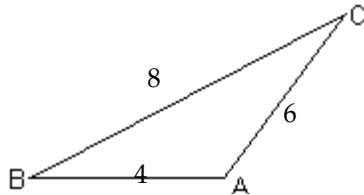
## 7.2 Trigonometry short version

Name \_\_\_\_\_

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

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

1)



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

2)  $a = 7$ ,  $c = 12$ ,  $B = 126^\circ$

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

3)  $a = 9$ ,  $b = 6$ ,  $c = 5$

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

**Solve the problem.**

4) A painter needs to cover a triangular region 61 meters by 69 meters by 70 meters. A can of paint covers 70 square meters. How many cans will be needed?

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

**Use Heron's formula to find the area of the triangle.** Round to the nearest square unit.

5)  $a = 5$  meters,  $b = 14$  meters,  $c = 11$  meters

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

6)  $a = 7$  inches,  $b = 10$  inches,  $c = 4$  inches

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

**Solve the problem.**

7) Two points, A and B, are on opposite sides of a building. A surveyor chooses a third point, C, 63 yards from B and 92 yards from A, with angle ACB measuring  $60.0^\circ$ . How far apart are A and B to the nearest yard?

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

**Determine the number of triangles with the given parts.**

8)  $a = 8$ ,  $b = 4$ ,  $c = 14$

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

9)  $a = 10$ ,  $b = 5$ ,  $c = 7$

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

**Solve the triangle.**

10)  $a = 70$ ,  $b = 12$ ,  $C = 105^\circ$

10) \_\_\_\_\_

11)  $a = 7$ ,  $b = 13$ ,  $c = 16$

11) \_\_\_\_\_

## Answer Key

Testname: TRIGONOMETRY 7.2 SHORT VERSION

- 1)  $A = 104^\circ$ ,  $B = 47^\circ$ ,  $C = 29^\circ$
- 2)  $b = 17.1$ ,  $A = 19^\circ$ ,  $C = 35^\circ$
- 3)  $A = 109^\circ$ ,  $B = 39^\circ$ ,  $C = 32^\circ$
- 4) 28 cans
- 5) 26 square meters
- 6) 9 square inches
- 7) 81 yd
- 8) 0
- 9) 1
- 10)  $c = 74.02$ ,  $A = 66^\circ$ ,  $B = 9^\circ$
- 11)  $A = 25.3^\circ$ ,  $B = 52.5^\circ$ ,  $C = 102.2^\circ$