

Practice

The Law of Cosines

Solve each triangle. Round to the nearest tenth.

1. $a = 20, b = 12, c = 28$

2. $a = 10, c = 8, B = 100^\circ$

3. $c = 49, b = 40, A = 53^\circ$

4. $a = 5, b = 7, c = 10$

Find the area of each triangle. Round to the nearest tenth.

5. $a = 5, b = 12, c = 13$

6. $a = 11, b = 13, c = 16$

7. $a = 14, b = 9, c = 8$

8. $a = 8, b = 7, c = 3$

9. The sides of a triangle measure 13.4 centimeters, 18.7 centimeters, and 26.5 centimeters. Find the measure of the angle with the least measure.

10. **Orienteering** During an orienteering hike, two hikers start at point A and head in a direction 30° west of south to point B . They hike 6 miles from point A to point B . From point B , they hike to point C and then from point C back to point A , which is 8 miles directly north of point C . How many miles did they hike from point B to point C ?

