

**PRACTICE Test 3 Law of Sines & Cosines & Area****Solve each triangle. Round your answers to the nearest tenth.**

1)  $c = 10$  mi,  $a = 17$  mi,  $b = 11$  mi

2)  $m\angle C = 24^\circ$ ,  $c = 27$  in,  $b = 15$  in

3)  $m\angle B = 92^\circ$ ,  $a = 35$  mi,  $b = 27$  mi

4)  $a = 12$  ft,  $b = 18$  ft,  $c = 28$  ft

5)  $m\angle C = 142^\circ$ ,  $m\angle A = 15^\circ$ ,  $c = 19$  cm

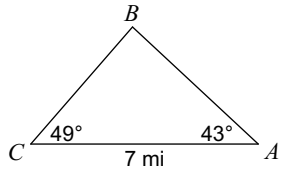
6)  $m\angle A = 38^\circ$ ,  $c = 35$  km,  $a = 34$  km

7)  $b = 21$  m,  $c = 29$  m,  $a = 13$  m

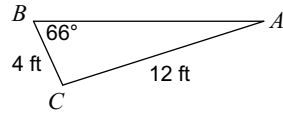
8)  $b = 14$  cm,  $a = 21$  cm,  $m\angle C = 89^\circ$

Find the area of each triangle to the nearest tenth.

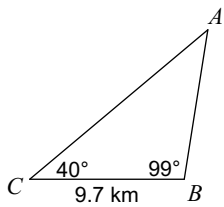
9)



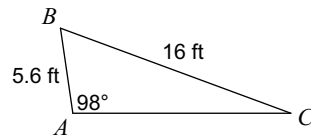
10)



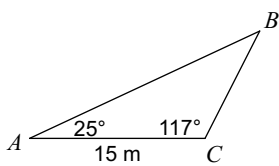
11)



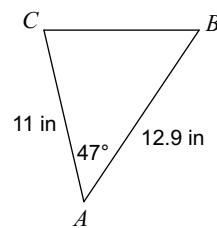
12)



13)



14)



**PRACTICE Test 3 Law of Sines & Cosines & Area****Solve each triangle. Round your answers to the nearest tenth.**

1)  $c = 10$  mi,  $a = 17$  mi,  $b = 11$  mi

$m\angle C = 34^\circ, m\angle A = 108^\circ, m\angle B = 38^\circ$

2)  $m\angle C = 24^\circ, c = 27$  in,  $b = 15$  in

$m\angle A = 142.9^\circ, m\angle B = 13.1^\circ, a = 40$  in

3)  $m\angle B = 92^\circ, a = 35$  mi,  $b = 27$  mi

Not a triangle

4)  $a = 12$  ft,  $b = 18$  ft,  $c = 28$  ft

$m\angle A = 17^\circ, m\angle B = 26^\circ, m\angle C = 137^\circ$

5)  $m\angle C = 142^\circ, m\angle A = 15^\circ, c = 19$  cm

$m\angle B = 23^\circ, a = 8$  cm,  $b = 12.1$  cm

6)  $m\angle A = 38^\circ, c = 35$  km,  $a = 34$  km

$m\angle B = 102.7^\circ, m\angle C = 39.3^\circ, b = 53.9$  km  
Or  $m\angle B = 1.3^\circ, m\angle C = 140.7^\circ, b = 1.3$  km

7)  $b = 21$  m,  $c = 29$  m,  $a = 13$  m

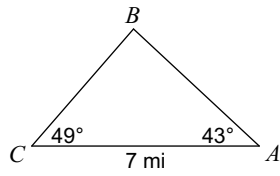
$m\angle C = 115^\circ, m\angle A = 24^\circ, m\angle B = 41^\circ$

8)  $b = 14$  cm,  $a = 21$  cm,  $m\angle C = 89^\circ$

$m\angle A = 57^\circ, m\angle B = 34^\circ, c = 25$  cm

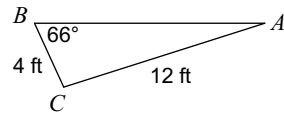
Find the area of each triangle to the nearest tenth.

9)



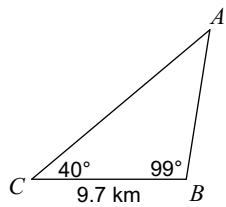
12.7 mi<sup>2</sup>

10)



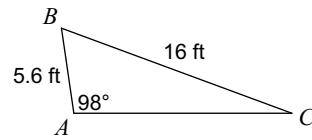
23.9 ft<sup>2</sup>

11)



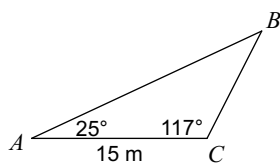
45.5 km<sup>2</sup>

12)



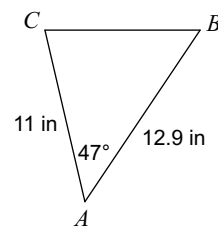
39.4 ft<sup>2</sup>

13)



68.8 m<sup>2</sup>

14)



51.9 in<sup>2</sup>