Name: _____
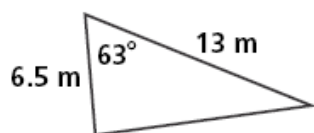
Law of Sines

1)   Find the area of each triangle.

1)
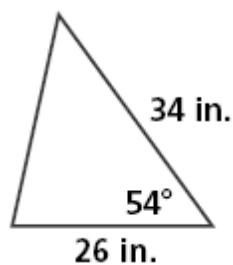
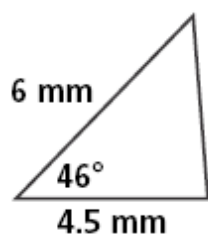6.5 m 63°   13 m

2)

9 mi
42°
10 mi

3)

10 km 38°   18 km

4)

34 in.
54°
26 in.

5)

6 mm
46°
4.5 mm

6)

28 in. 59° 32 in.

7)

65°   5 ft
4 ft

8)

10 cm
35°
19 cm

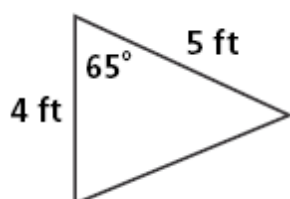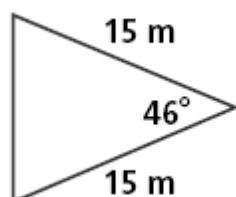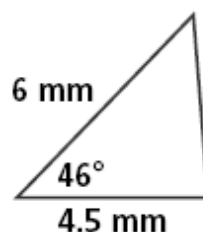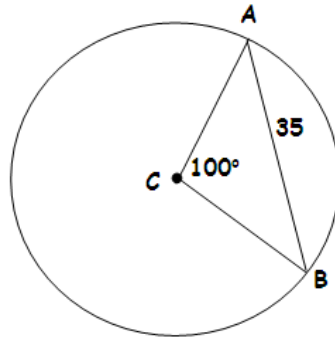9)

15 m
46°
15 m

10)

6 mm
46°
4.5 mm
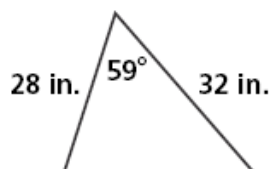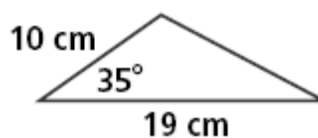
2) Find the area of circle C by using the Law of Sines to find the radius. Hint: What kind of triangle is ABC?

3) The diagonals of a parallelogram are 14 ft and 18 ft and they intersect at an angle of $120°$. Find the area of the parallelogram.

4) If the area of a triangular lot having two sides of length 52 and 90 meters is 2289 sq. meters. Find the included angle between the two given sides.

5) Find the area of a quadrilateral ABCD if the area of triangle ABC is 40 cm^2, AB = 18 cm, ∠B = 25°, AD = 9 cm, ∠DAC = 55°.

6) The area of triangle ABC is 100 cm^2. Find ∠B if a = 20 cm and c = 15 cm.

7) The lengths of the adjacent sides of a parallelogram are 4 yards and 6 yards. Find the area of the parallelogram, if the angle between the two sides is 60.