

Law of sines(Ambiguous) and area

Date _____ Period _____

Find each measurement indicated. Round your answers to the nearest tenth.

- 1) In $\triangle YZX$, $m\angle Y = 31^\circ$, $x = 32$ km, $y = 23$ km
Find z

43.5 km or 11.4 km

- 2) In $\triangle FDE$, $m\angle D = 103^\circ$, $m\angle E = 13^\circ$, $f = 24$ in
Find e

6 in

- 3) In $\triangle STR$, $m\angle S = 150^\circ$, $m\angle T = 7^\circ$, $s = 41$ in
Find t

10 in

- 4) In $\triangle HPK$, $m\angle H = 17^\circ$, $k = 28$ m, $h = 17$ m
Find p

41.7 m or 11.9 m

- 5) In $\triangle YZX$, $m\angle Z = 36^\circ$, $m\angle X = 66^\circ$, $z = 9$ cm
Find x

14 cm

- 6) In $\triangle RST$, $m\angle R = 30^\circ$, $t = 25$ m, $r = 22$ m
Find s

39.7 m or 3.5 m

- 7) In $\triangle ZXY$, $m\angle X = 19^\circ$, $m\angle Y = 33^\circ$, $x = 12$ ft
Find y

20.1 ft

- 8) In $\triangle PQR$, $m\angle Q = 14^\circ$, $m\angle R = 11^\circ$, $p = 40$ yd
Find r

18.1 yd

- 9) In $\triangle FDE$, $m\angle F = 152^\circ$, $e = 33$ in, $f = 11$ in
Find d

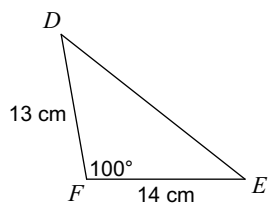
Not a triangle

- 10) In $\triangle QRP$, $m\angle R = 49^\circ$, $m\angle P = 63^\circ$, $r = 22$ cm
Find p

26 cm

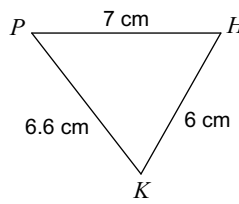
Find the area of each triangle to the nearest tenth.

11)



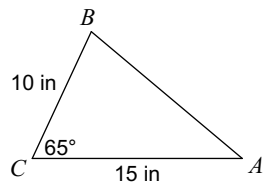
89.6 cm²

12)



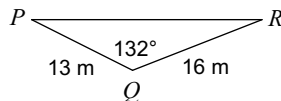
18.3 cm²

13)



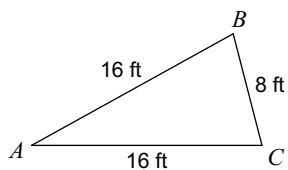
68 in²

14)



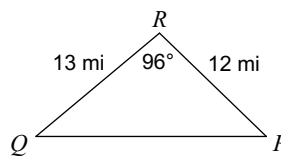
77.3 m²

15)



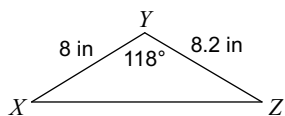
62 ft²

16)



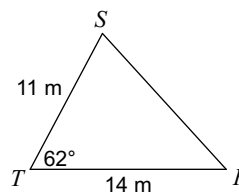
77.6 mi²

17)



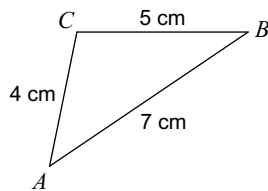
29 in²

18)



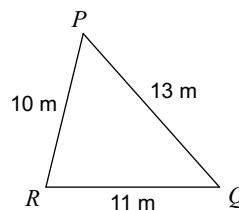
68 m²

19)



9.8 cm²

20)



53.4 m²