Geometry 1 - Mr. C. - Trig. Table & Add/Sub Calculator OK. Name_____

Practice for Semester 2 Exam

Date_____ Period____

Identify the center and radius of each.

1) $(x - \sqrt{183})^2 + (y - \sqrt{142})^2 = 9$

2) $\left(x + \frac{27}{2}\right)^2 + (y + 5)^2 = 9$

3) $(x + 11)^2 + \left(y - \frac{17}{2}\right)^2 = 9$

4) $(x - 1)^2 + (y + 1)^2 = 121$

Use the information provided to write the equation of each circle.

5) Center: $\left(-\frac{11}{2}, \frac{5}{2}\right)$
Radius: 6

6) Center: $\left(-\frac{17}{2}, -11\right)$
Radius: 6

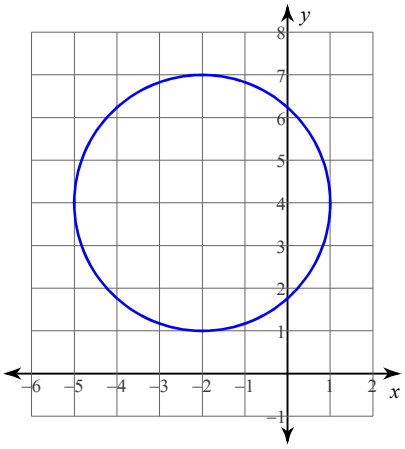
7) Center: $(6, -11)$
Point on Circle: $(7, -15)$

8) Center: $(9, -5)$
Point on Circle: $(18, -8)$

9) Center: $(8, 15)$
Point on Circle: $(11, 17)$

10) Center: $(13, 9)$
Point on Circle: $(12, 7)$

11)



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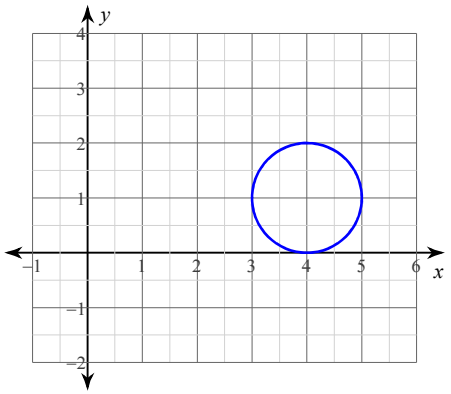


Find the circumference of each circle (exact).

13) radius = 9 m

14) radius = 6 mi

15) radius = 10 mi

16) radius = 3 in

Find the circumference of each circle. Use 22/7 for the value of π. Round your answer to the nearest tenth.

17) radius = 7.4 mi

18) radius = 5.8 yd

19) radius = 9.9 yd

20) radius = 9 km

21) radius = 11.6 yd

22) radius = 3 m

23) radius = 10 km

24) radius = 7 cm

25) radius = 5.6 yd

26) radius = 8 cm

27) radius = 2 m

28) radius = 4 cm

Find the area of each circle (exact). Use 22/7 for the value of π.

29) radius = 10 yd

30) radius = 3 mi

31) radius = 7 km

32) radius = 11 in

Find the area of each. Use 22/7 for the value of π. Round your answer to the nearest tenth.

33) radius = 2 yd

34) radius = 8 cm

35) radius = 7 cm

36) radius = 9 mi

37) radius = 6.3 km

38) radius = 6 yd

39) radius = 12 m

40) radius = 3 cm

41) radius = 4 m

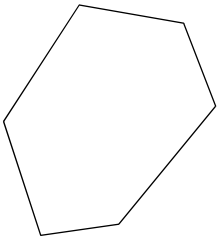
42) radius = 2.1 in

43) radius = 10.6 km

44) radius = 11 m

Write the name of each polygon.

45)



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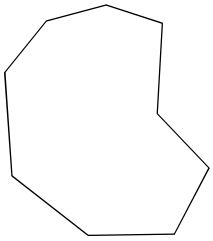

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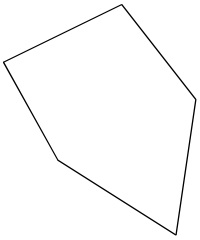

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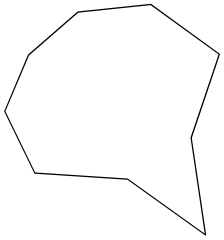
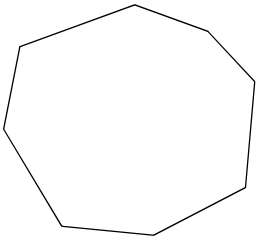


State if each polygon is concave or convex.

49)



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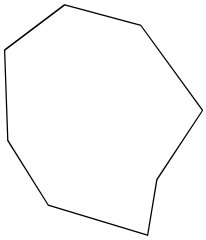
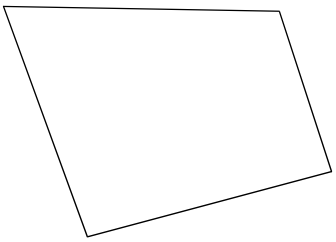
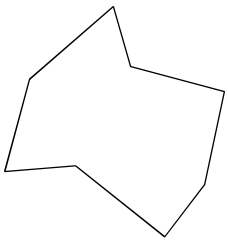
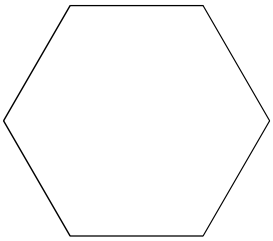


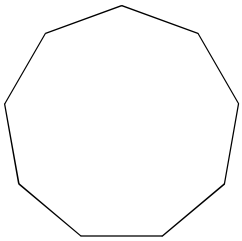
State if each polygon is regular or not.

51) 

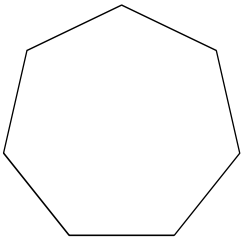
52) 

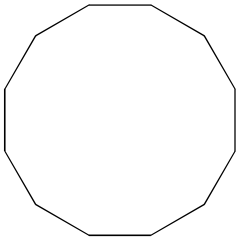
Find the measure of one interior angle in each polygon. Round your answer to the nearest tenth if necessary.

53) 

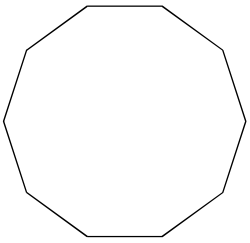
54) 

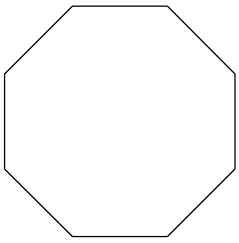
Find the measure of one exterior angle in each polygon. Round your answer to the nearest tenth if necessary.

55) 

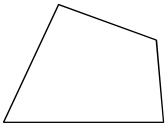
56) 

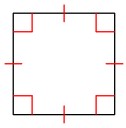
Find the interior angle sum for each polygon. Round your answer to the nearest tenth if necessary.

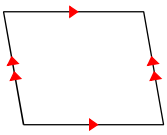
57) 

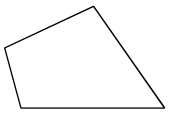
58) 

State all possible names for each figure.

59) 

60) 

61) 

62) 

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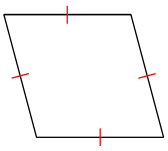

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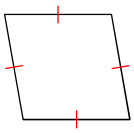

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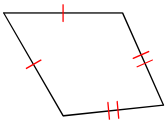

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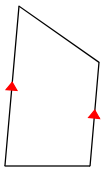
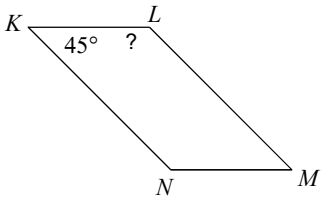


Find the measurement indicated in each parallelogram.

67)



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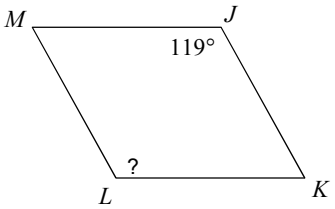

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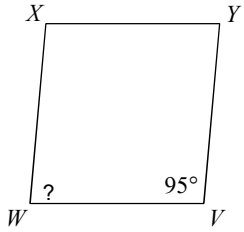

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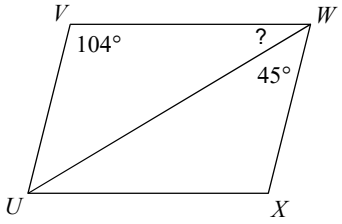

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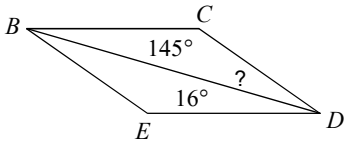

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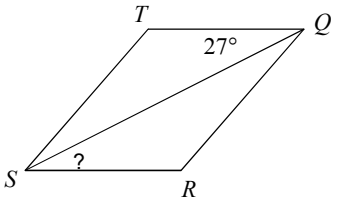
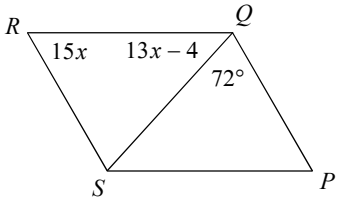
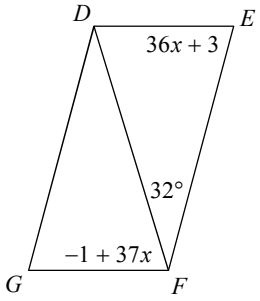


73) Find $m\angle RSP$

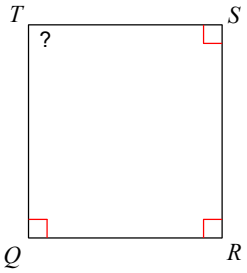


74) Find $m\angle EFG$



Find the measure of each angle indicated.

75)



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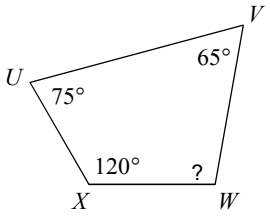

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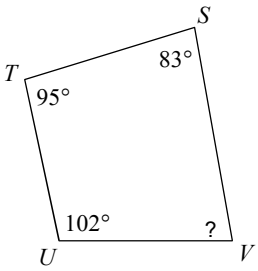

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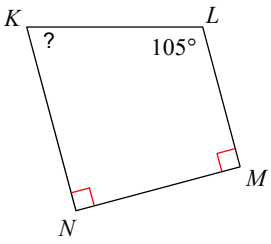
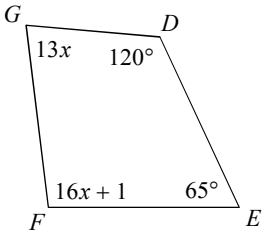
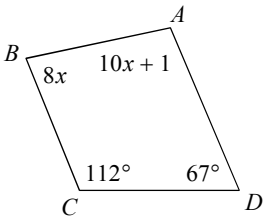


79) $m\angle F$

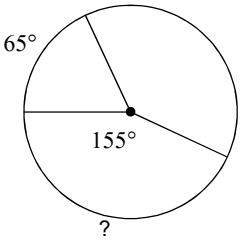


80) $m\angle B$



Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

81)



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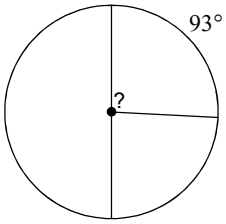

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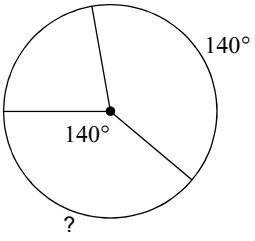

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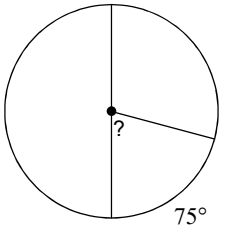
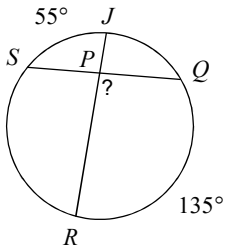


Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

85)



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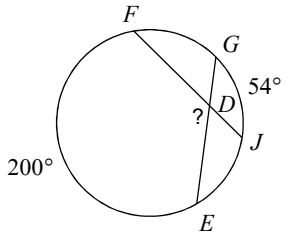

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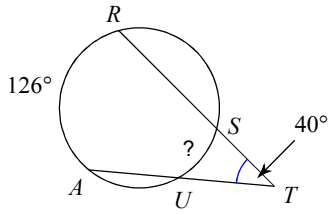

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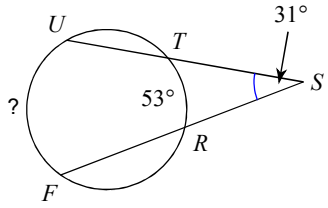

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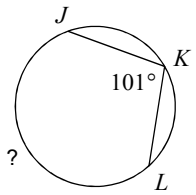

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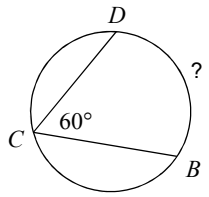

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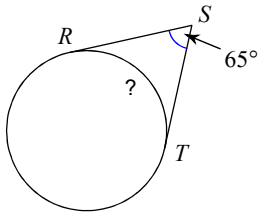

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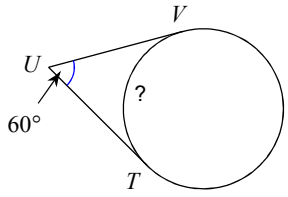

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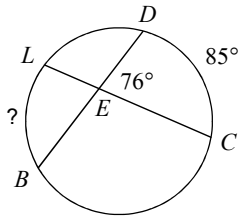

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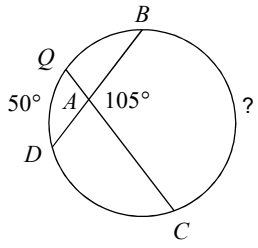

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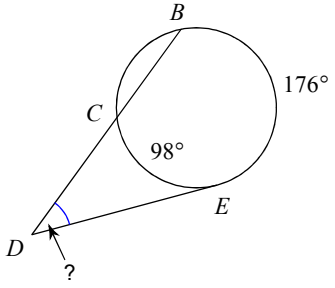
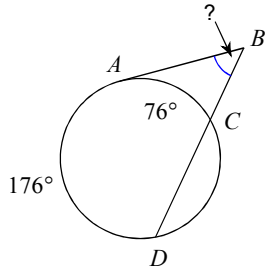
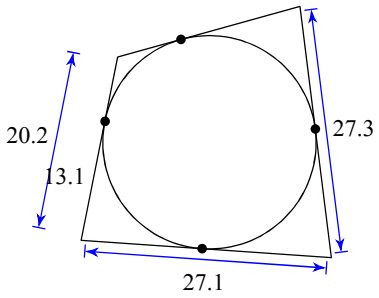


96)

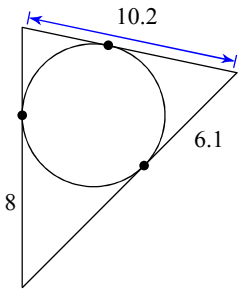


Find the perimeter of each polygon. Assume that lines which appear to be tangent are tangent.

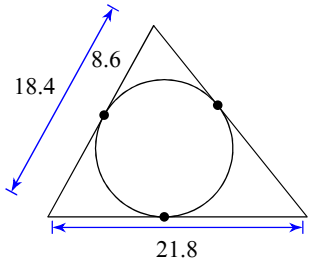
97)



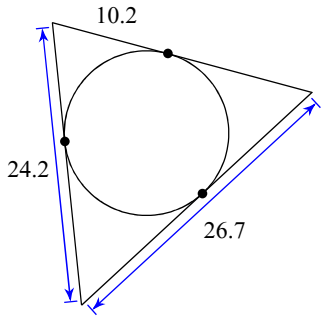
98)



99)

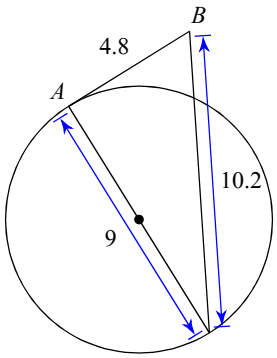


100)

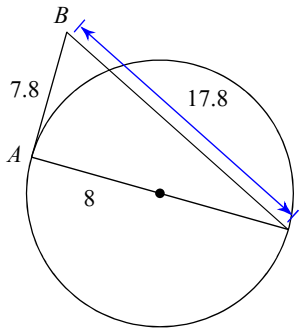


Determine if line AB is tangent to the circle.

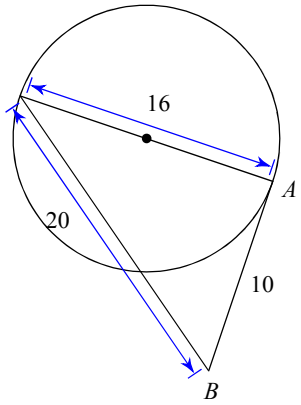
101)



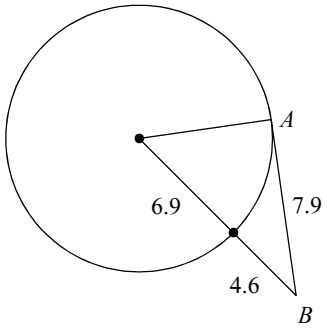
102)



103)

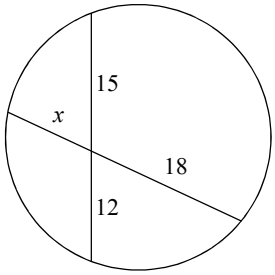


104)

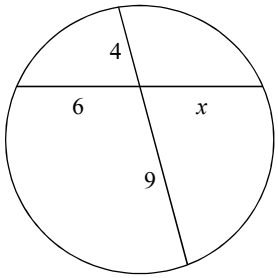


Solve for *x*. Assume that lines which appear tangent are tangent.

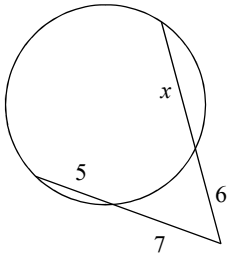
105)



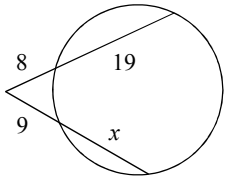
106)



107)

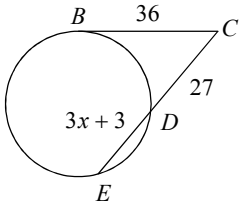


108)

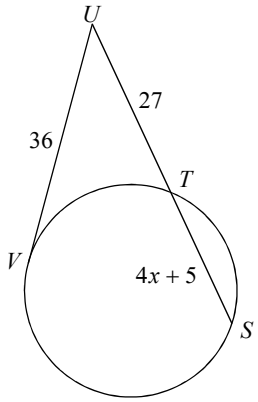


Find the measure of the line segment indicated. Assume that lines which appear tangent are tangent.

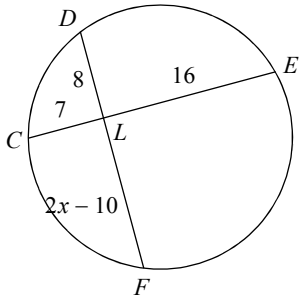
109) Find *DE*



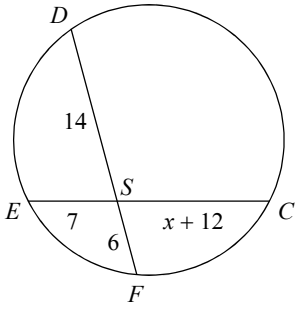
110) Find *US*



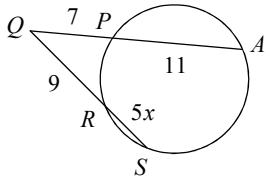
111) Find *LF*



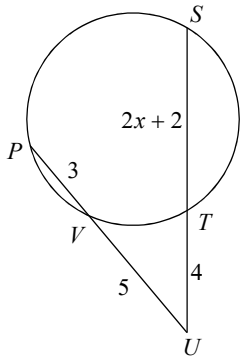
112) Find *SC*



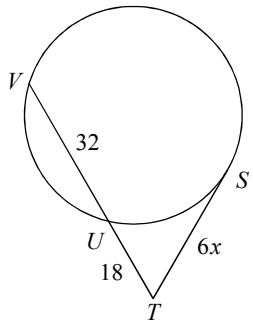
113) Find *SR*



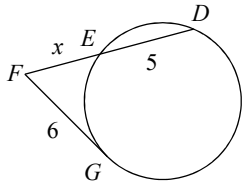
114) Find *SU*



115) Find *ST*

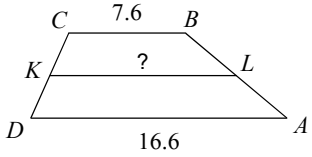


116) Find *FD*

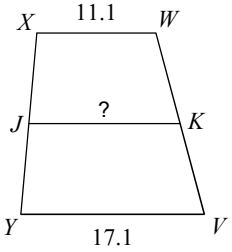


Find the length of the midsegment of each trapezoid.

117)

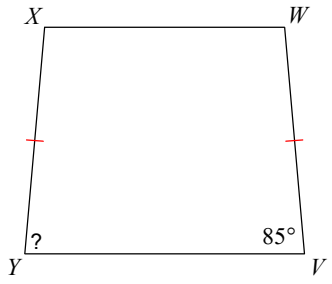


118)

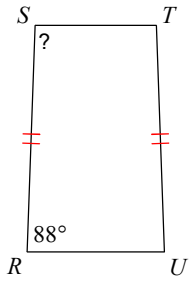


Find the measurement of the angle indicated for each trapezoid.

119)

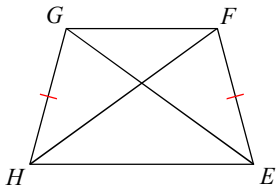


120)

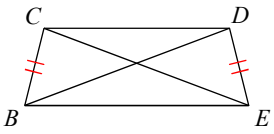


Find the length of the diagonal indicated for each trapezoid.

121) $GE = 4x - 3$
$HF = x + 15$
Find GE

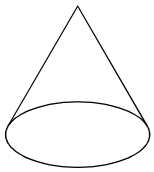


122) $BD = x - 2$
$CE = 4x - 29$
Find BD

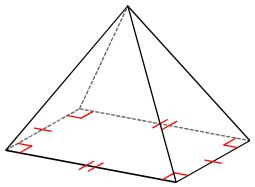


Name each figure.

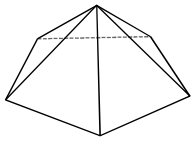
123)



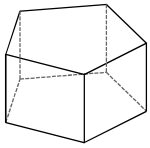
124)



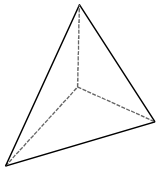
125)



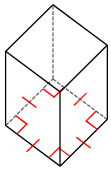
126)



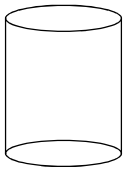
127)



128)



129)



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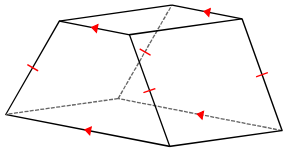
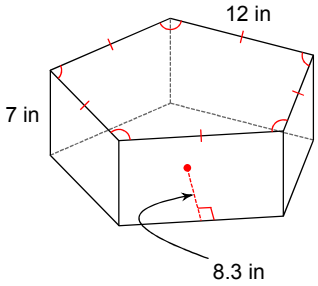
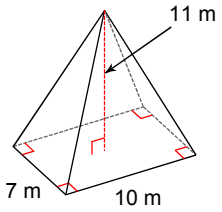


Find the volume of each figure. Round your answers to the nearest tenth, if necessary. Leave your answers in terms of π for answers that contain π.

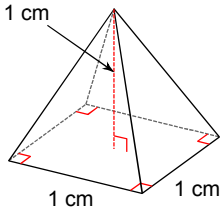
131)



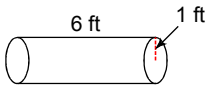
132)



133)



134)



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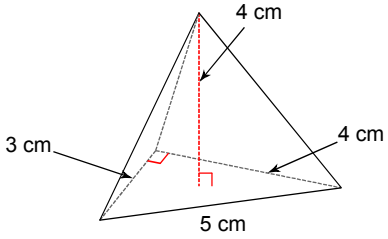
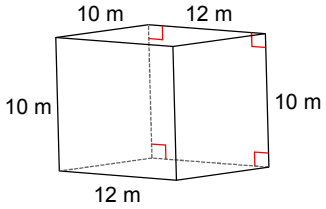
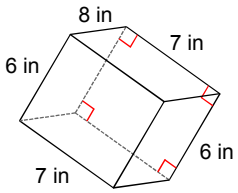


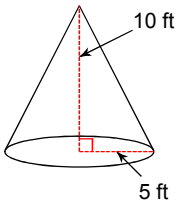
136)



137)



138)



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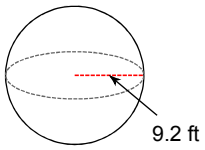
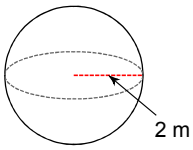


140)



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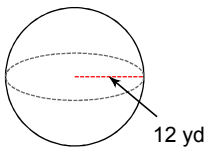
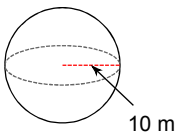
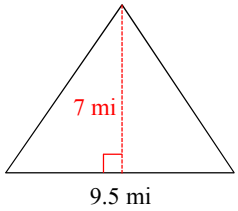


142)



Find the area of each.

143)



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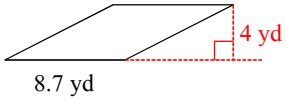
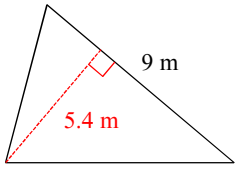
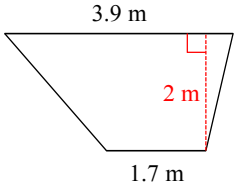


145)



146)



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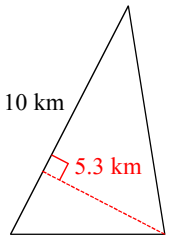

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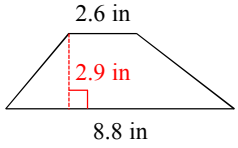

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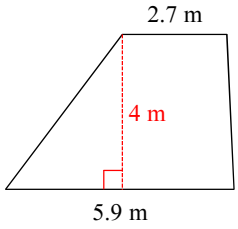
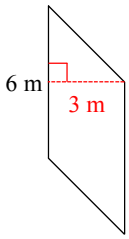


150)



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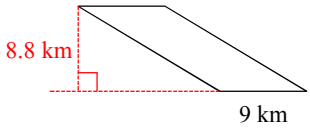

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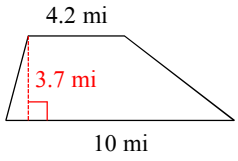
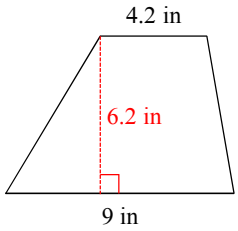
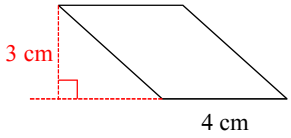


153)

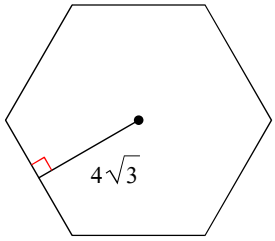


154)

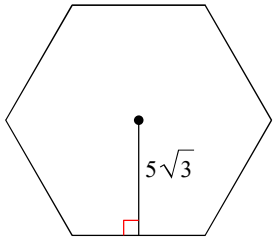


Find the area of each regular polygon.

155)

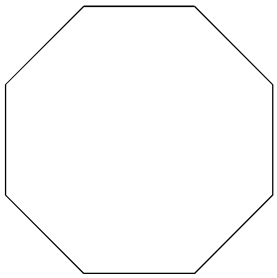


156)



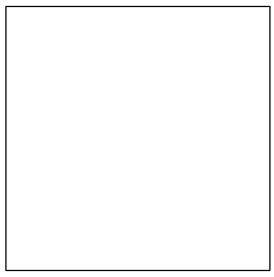
Find the area of each figure. Round your answer to the nearest tenth. Tip: you will probably need to use SOHCAHTOA & your trig. tables

157)



Perimeter = 64 mi

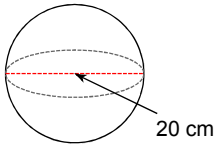
158)



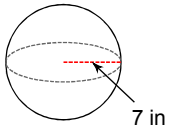
Perimeter = 20 km

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π.

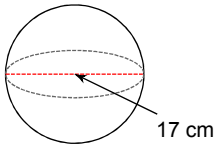
159)



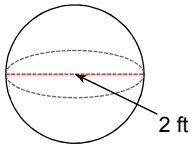
160)



161)

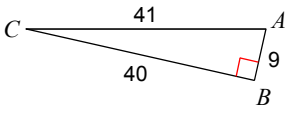


162)

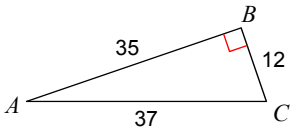


Find the value of each trigonometric ratio.

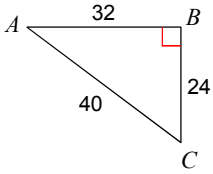
163) sin *C*



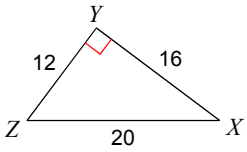
164) tan *C*



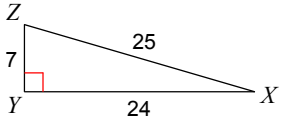
165) cos *C*



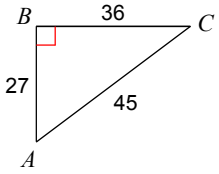
166) sin *X*



167) cos *Z*

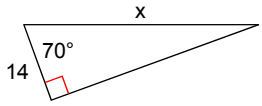


168) tan *C*

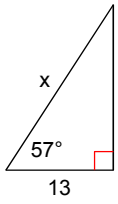


Find the missing side. Round to the nearest tenth.

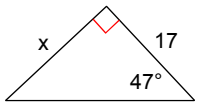
169)



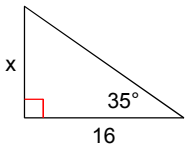
170)



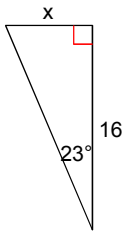
171)



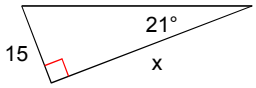
172)



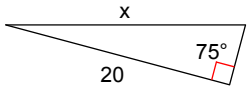
173)



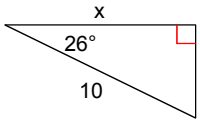
174)



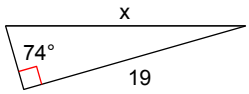
175)



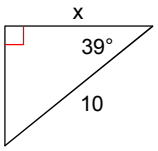
176)



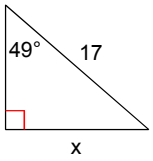
177)



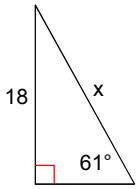
178)



179)

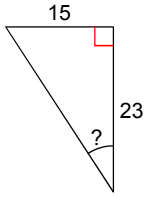


180)

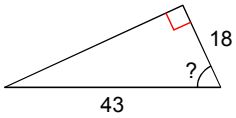


Find the measure of the indicated angle to the nearest degree.

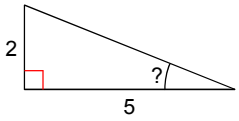
181)



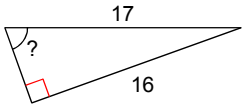
182)



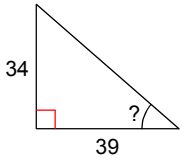
183)



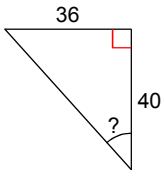
184)



185)



186)



Answers to Practice for Semester 2 Exam (ID: 1)

1) Center: $(\sqrt{183}, \sqrt{142})$
Radius: 3

2) Center: $\left(-\frac{27}{2}, -5\right)$
Radius: 3

3) Center: $\left(-11, \frac{17}{2}\right)$
Radius: 3

4) Center: $(1, -1)$
Radius: 11

5) $\left(x + \frac{11}{2}\right)^2 + \left(y - \frac{5}{2}\right)^2 = 36$

6) $\left(x + \frac{17}{2}\right)^2 + (y + 11)^2 = 36$

7) $(x - 6)^2 + (y + 11)^2 = 17$

8) $(x - 9)^2 + (y + 5)^2 = 90$

9) $(x - 8)^2 + (y - 15)^2 = 13$

10) $(x - 13)^2 + (y - 9)^2 = 5$

11) $(x + 2)^2 + (y - 4)^2 = 9$

12) $(x - 4)^2 + (y - 1)^2 = 1$

13) 18π m
14) 12π mi
15) 20π mi
16) 6π in
17) 46.5 mi
18) 36.5 yd
19) 62.2 yd
20) 56.6 km
21) 72.9 yd
22) 18.9 m
23) 62.9 km
24) 44 cm
25) 35.2 yd
26) 50.3 cm
27) 12.6 m
28) 25.1 cm
29) 100π yd²
30) 9π mi²
31) 49π km²
32) 121π in²
33) 12.6 yd²
34) 201.1 cm²
35) 154 cm²
36) 254.6 mi²
37) 124.7 km²
38) 113.1 yd²
39) 452.6 m²
40) 28.3 cm²
41) 50.3 m²
42) 13.9 in²
43) 353.1 km²
44) 380.3 m²
45) hexagon
46) nonagon
47) pentagon
48) nonagon
49) convex
50) concave
51) not regular
52) not regular
53) 120°
54) 140°
55) 51.4°
56) 30°
57) 1440°
58) 1080°
59) quadrilateral
60) quadrilateral, parallelogram, rhombus, rectangle, square
61) quadrilateral, parallelogram
62) quadrilateral
63) quadrilateral, parallelogram, rhombus
64) quadrilateral, parallelogram, rhombus
65) quadrilateral, kite
66) quadrilateral, trapezoid
67) 135°
68) 119°
69) 85°
70) 31°
71) 19°
72) 27°
73) 120°
74) 105°
75) 90°
76) 100°
77) 80°
78) 75°
79) 97°
80) 80°
81) 155°
82) 93°
83) 140°
84) 75°
85) 95°
86) 127°
87) 46°
88) 115°
89) 202°
90) 120°
91) 115°
92) 120°
93) 67°
94) 160°
95) 39°
96) 50°
97) 95
98) 36.4
99) 60.8
100) 73.8
101) Tangent
102) Tangent
103) Not tangent
104) Not tangent
105) 10
106) 6
107) 8
108) 15
109) 21
110) 48
111) 14
112) 12
113) 5
114) 10
115) 30
116) 9
117) 12.1
118) 14.1
119) 85°
120) 92°
121) 21
122) 7
123) cone
124) rectangular pyramid
125) pentagonal pyramid
126) pentagonal prism
127) triangular pyramid
128) square prism
129) cylinder
130) trapezoidal prism
131) 1743 in³
132) 256.7 m³
133) 0.3 cm³
134) 6π ft³
135) 8 cm³
136) 1200 m³
137) 336 in³
138) 83.3π ft³
139) 1038.3π ft³
140) 10.7π m³
141) 2304π yd³
142) 1333.3π m³
143) 33.25 mi²
144) 34.8 yd²
145) 24.3 m²
146) 5.6 m²
147) 26.5 km²
148) 16.53 in²
149) 17.2 m²
150) 18 m²
151) 79.2 km²
152) 26.27 mi²
153) 40.92 in²
154) 12 cm²
155) $96\sqrt{3}$
156) $150\sqrt{3}$
157) 309 mi²
158) 25 km²
159) 400π cm²

160) 196π in^2

161) 289π cm^2

162) 4π ft^2

163) $\frac{9}{41}$

164) $\frac{35}{12}$

165) $\frac{3}{5}$

166) $\frac{3}{5}$

167) $\frac{7}{25}$

168) $\frac{3}{4}$

169) 40.9

170) 23.9

171) 18.2

172) 11.2

173) 6.8

174) 39.1

175) 20.7

176) 9.0

177) 19.8

178) 7.8

179) 12.8

180) 20.6

181) 33°

182) 65°

183) 22°

184) 70°

185) 41°

186) 42°