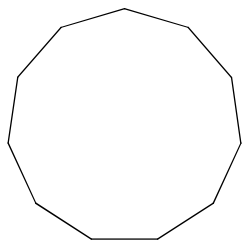


Spring 2021 Final Exam Review

Find one EXTERIOR angle measure in the regular polygon. Round to the nearest tenth.

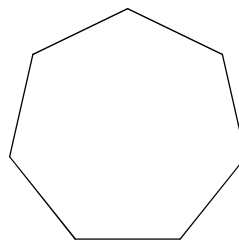
Find the measure of one INTERIOR angle in the regular polygon. Round to nearest tenth.

1)



32.7°

2)

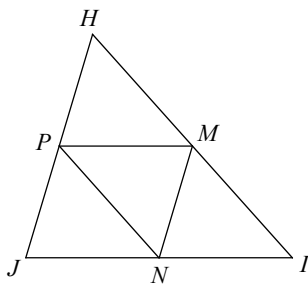


128.6°

In the large triangle, M , N , and P are midpoints of the sides. Name a segment parallel to the one given. BOX answer!

Find the missing length indicated. BOX your answer!

3)

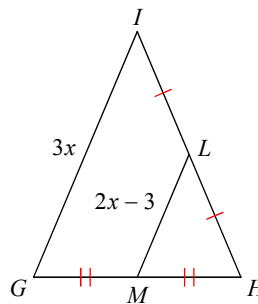


\overline{HJ}

$\overline{MN} \parallel$ _____

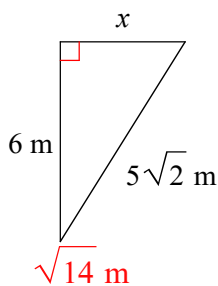
4) Find IG

18

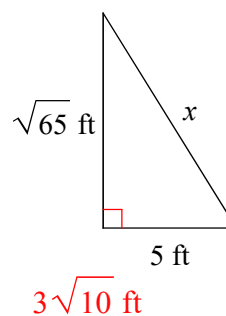


Find the missing side length for each triangle. Put answers in simplest radical form and BOX!

5)



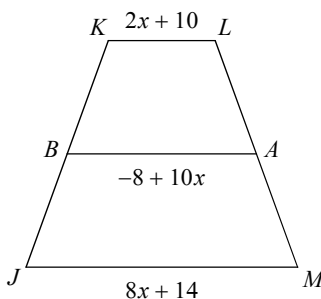
6)



Find the length of the midsegment of the trapezoid. BOX your answer!

Find the measure of the angle indicated. BOX your answer!

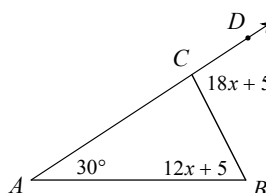
7)



32

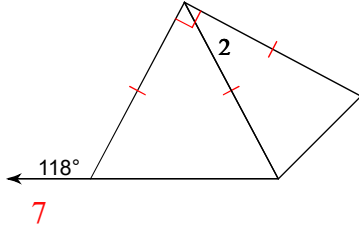
8) Find $m\angle DCB$.

95°



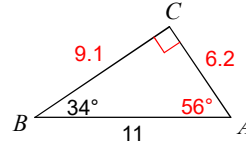
Find the value of x . **BOX** your answer!

9) $m\angle 2 = 5x - 1$



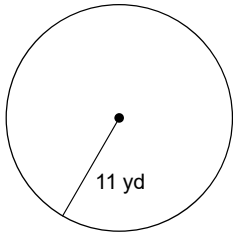
Find the missing angles and sides. Round your answers to the nearest tenth.

10)



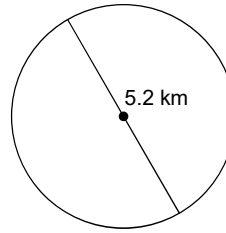
Find the circumference of the circle. Leave π in your answer. **BOX** your answer!

11)



22π yd

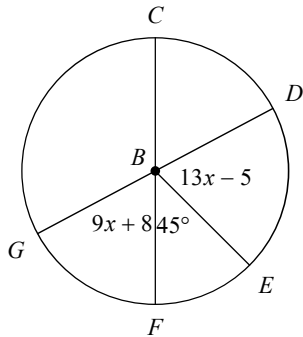
12)



21.2 km²

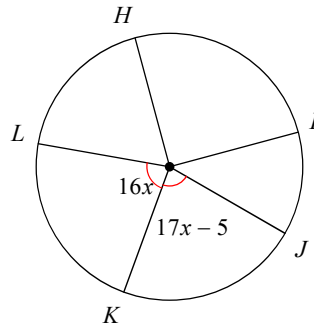
Find the measure of each arc or central angle indicated. Assume that lines which appear to be diameters are, in fact, diameters. **BOX** your answers!

13) $m\angle DBE$



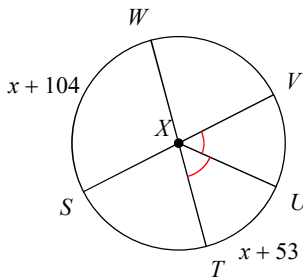
73°

14) $m\widehat{JK}$



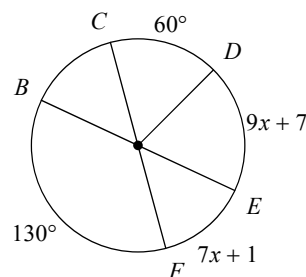
80°

15) $m\angle VXU$



51°

16) $m\widehat{CEB}$



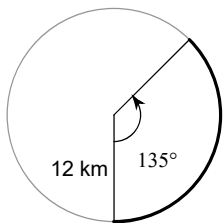
310°

17) The angle of depression from the top of a 200-meter-high vertical cliff to a buoy is 15 degrees. To the nearest tenth of a meter, how far is the buoy from the base of the cliff? **BOX** your answer.

746.4 meters

Find the length of the arc. Leave π in your answer. **BOX** your answer.

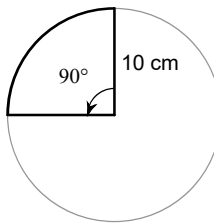
18)



9π km

Find the area of the sector. Leave π in your answer. **BOX** your answer.

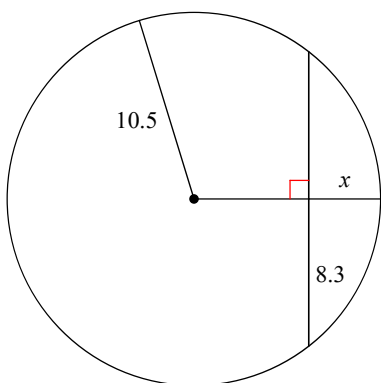
19)



25π cm²

Find the length of the segment indicated. Round your answer to the nearest tenth, if necessary. **BOX** your answer.

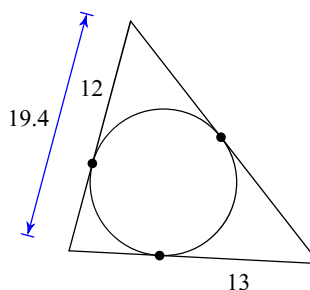
20)



4.1

Find the perimeter of the polygon. Assume that lines which look tangent are, in fact, tangent. **BOX** your answer.

21)

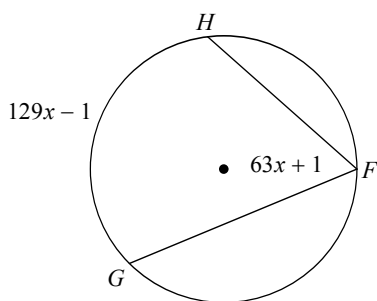


64.8

Find the measure of each angle indicated. **BOX** your answers.

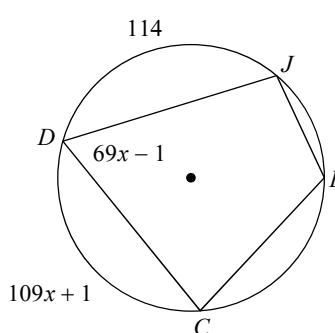
22) Find $m\angle GFH$

64°



23) Find $m\angle JDC$

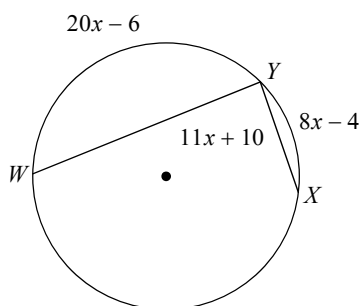
68°



Find the measure of each arc indicated. **BOX** your answers.

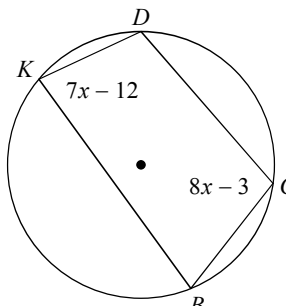
24) Find $m\widehat{YX}$

52°



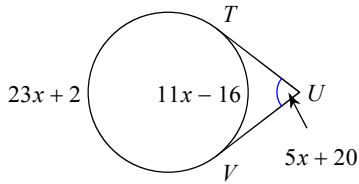
25) Find $m\widehat{DB}$

158°

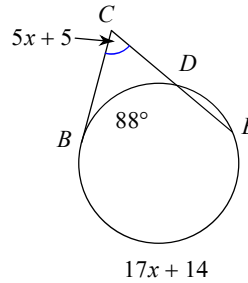


Find the measure of the arc or angle indicated. Assume that lines which look tangent are tangent.

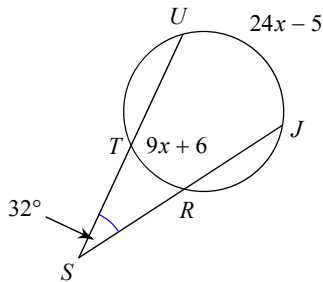
26) Find $m\widehat{VT}$ 105°



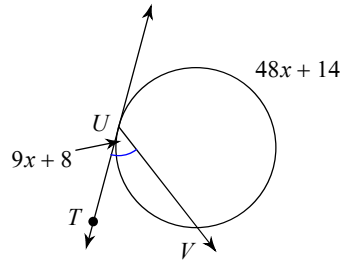
27) Find $m\angle BCE$ 65°



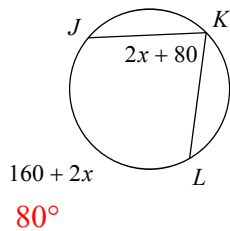
28) Find $m\widehat{TR}$ 51°



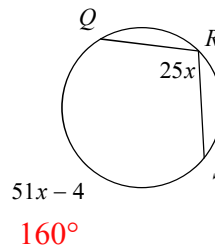
29) Find $m\angle VUT$ 53°



30) Find $m\angle JKL$



31) Find $m\widehat{QRS}$



Find the midpoint of the line segment with the given endpoints. **BOX** your answer.

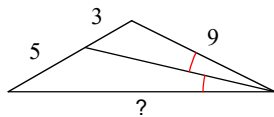
32) (1, 5), (6, -7)
(3 1/2, -1)

Find the distance between the pair of points. Leave your answer in simplest radical form.

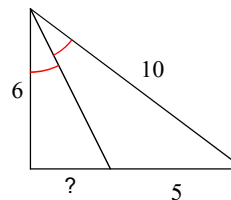
33) (1, -3), (6, -6)
√34

For each figure, find the missing length indicated. **BOX** your answer.

34) 15



35) 3

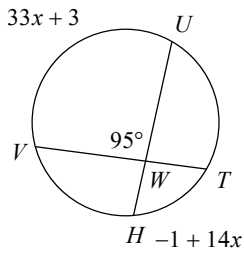


36) Fred's eyes are five feet above the ground and 80 feet away from the top of a flagpole. Fred has to look up at an angle of 70 degrees to see the pole top. To the nearest tenth, how tall is the flagpole?

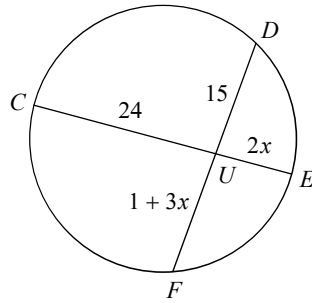
80.2 feet

Find the measure of the arc or line segment indicated. Assume that lines which look tangent are tangent. **BOX** your answers.

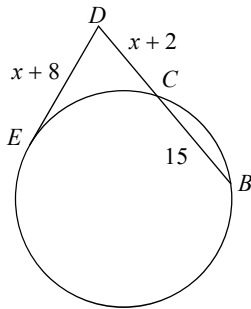
37) Find $m\widehat{VU}$ 135°



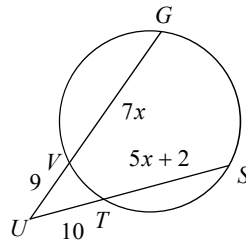
38) Find DF 31



39) Find ED 18

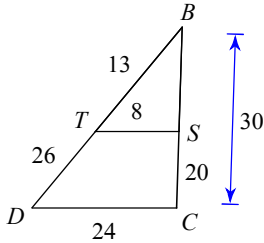


40) Find SU 27



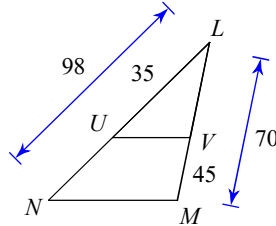
State if each pair of triangles is similar. If they are similar, state how you know that they are similar (AA, SAS, SSS) and complete the similarity statement.

41)



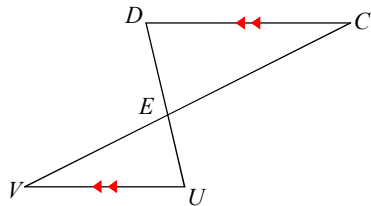
$\triangle BCD \sim$ _____
similar; SSS similarity; $\triangle BST$

42)



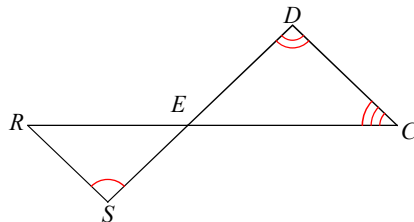
$\triangle LMN \sim$ _____
similar; SAS similarity; $\triangle LVU$

43)



$\triangle EDC \sim$ _____
similar; AA similarity; $\triangle EUV$

44)



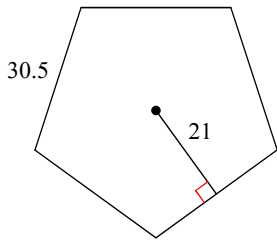
$\triangle EDC \sim$ _____
not similar

45) For two cats on level ground on opposite sides of a ten-foot-tall fence, the angles of elevation to the fence top are 39 and 58 degrees. To the nearest tenth, find the distance between the cats.

18.6 feet

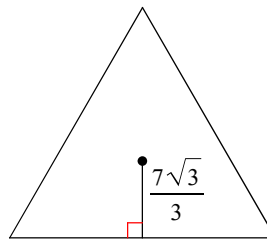
Find the area of each regular polygon. Round answers to nearest tenth, if necessary, and BOX!

46)



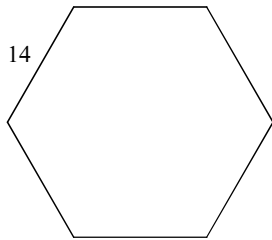
1601.3

47)



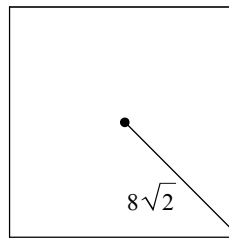
84.9

48)



509.2

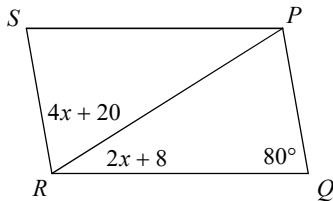
49)



256

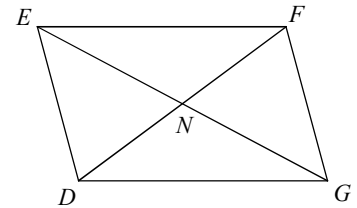
Find the measurement indicated in each parallelogram. BOX your answers.

50) Find $m\angle QRP$



32°

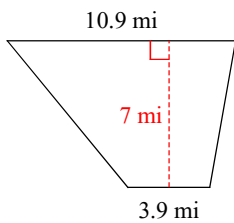
51) $EN = x$
 $NG = 2x - 9$
 Find EG



18

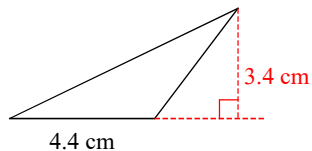
Find the area of each figure. Round answers to the nearest tenth, if necessary, and BOX them!

52)



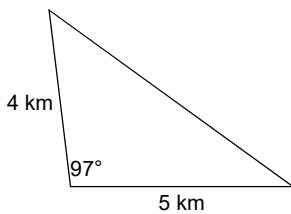
51.8 mi²

53)



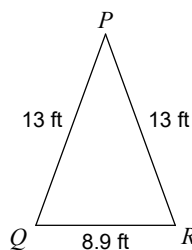
7.48 cm²

54)



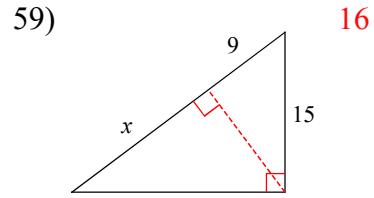
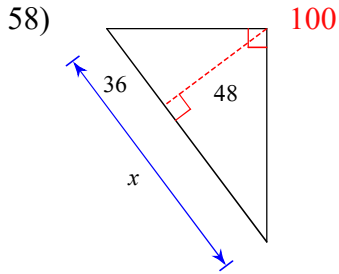
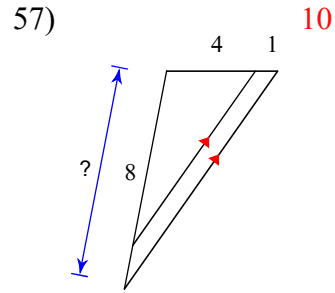
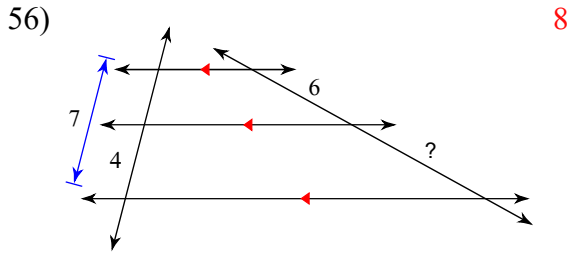
9.9 km²

55)

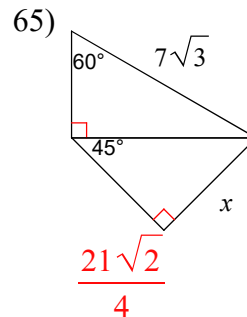
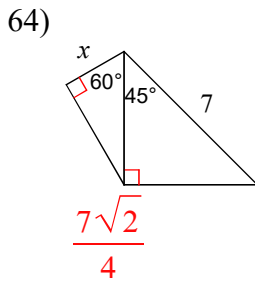
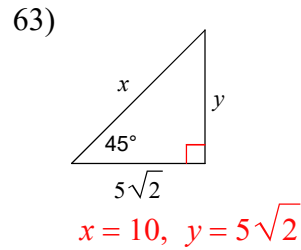
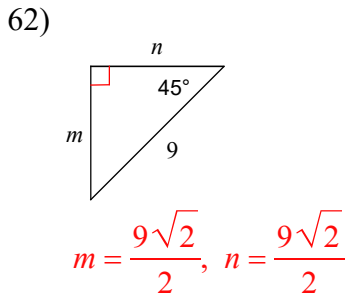
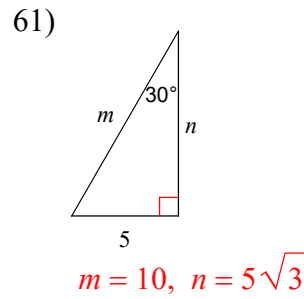
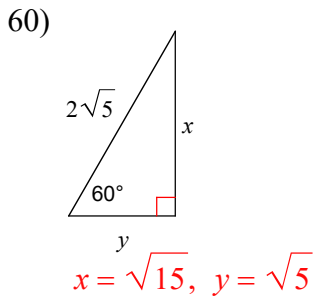


54.4 ft²

For each figure, find the missing length indicated. **BOX** your answers.



Find the length(s) of the missing side(s) of each triangle. Put answers in simplest radical form.

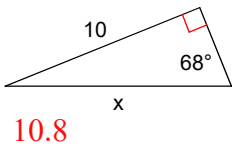


66) Maria measures the angle of elevation from a point on level ground to the top of a 150-meter-high building to be 34 degrees. She then walks from that location toward the building until the angle of elevation is 45 degrees. To the nearest tenth of a meter, how far does Maria walk? **BOX** answer!

72.4 meters

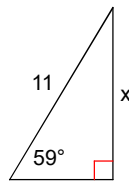
For each triangle, find the missing side length. Round answers to the nearest tenth, if necessary.

67)



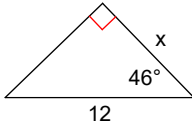
10.8

68)



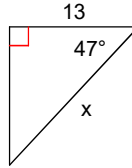
9.4

69)



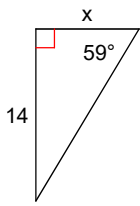
8.3

70)



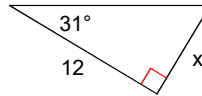
19.1

71)



8.4

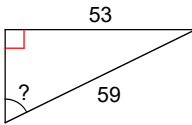
72)



7.2

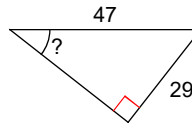
Find the measure of the indicated angle to the nearest degree. BOX your answers!

73)



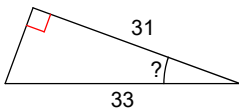
64°

74)



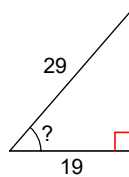
38°

75)



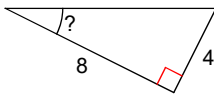
20°

76)



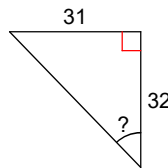
49°

77)



27°

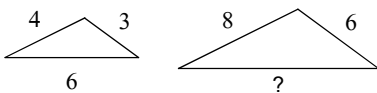
78)



44°

The pair of polygons is similar. Find the missing side length. BOX your answer!

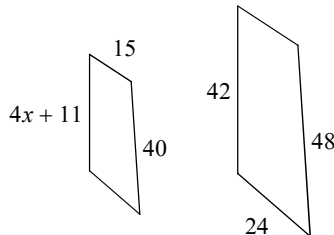
79)



12

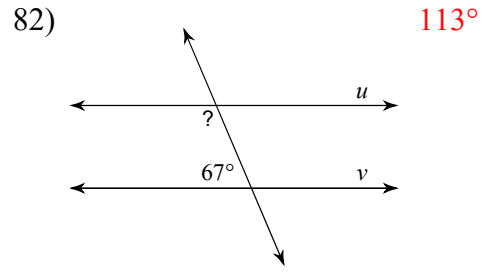
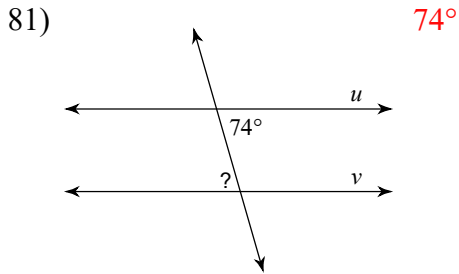
The pair of polygons is similar. Solve for x . BOX your answer!

80)



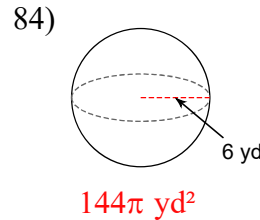
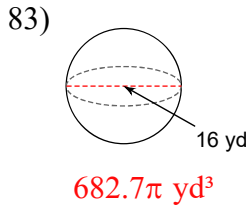
6

Find the measure of the indicated angle that makes lines u and v parallel. **BOX** your answers!



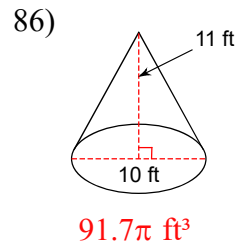
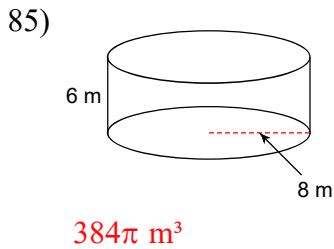
Find the volume of the sphere. Round your answer to the nearest tenth, if necessary. Leave your answer in terms of π and **BOX**!

Find the surface area of the sphere. Round your answer to the nearest tenth, if necessary. Leave your answer in terms of π and **BOX**!



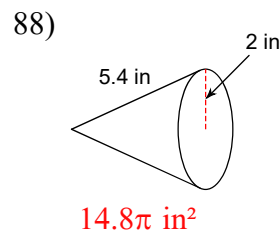
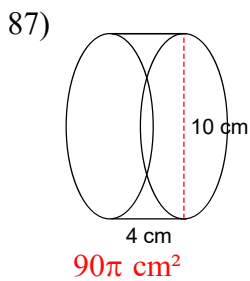
Find the volume of the cylinder. Round to the nearest tenth. Leave the answer in terms of π .

Find the volume of the cone. Round to the nearest tenth. Leave the answer in terms of π .



Find the surface area of the cylinder. Round to the nearest tenth. Leave π in the answer.

Find the surface area of the cone. Round to the nearest tenth. Leave π in the answer.



Find the volume of the triangular prism. Round to the nearest tenth, if necessary.

Find the lateral AND surface area of the hexagonal prism. Round to the nearest tenth.

