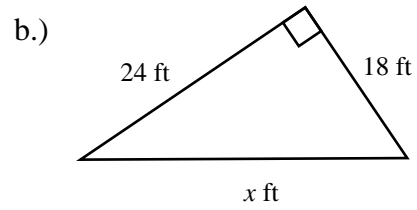
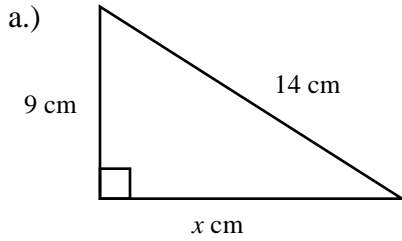


Chapter 7:

1. Find the unknown side length. Round to the nearest hundredth if needed.

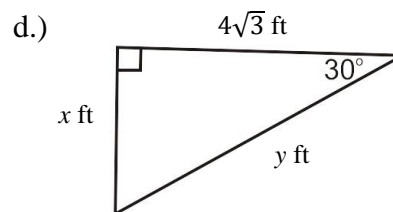
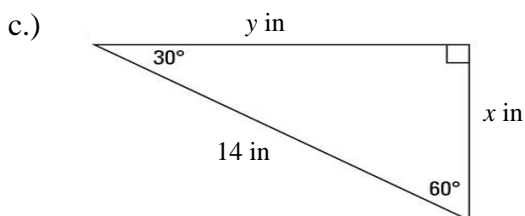
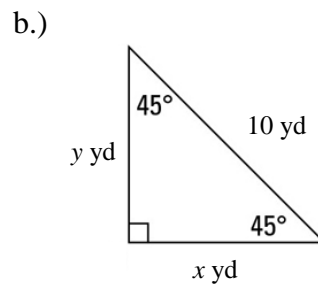
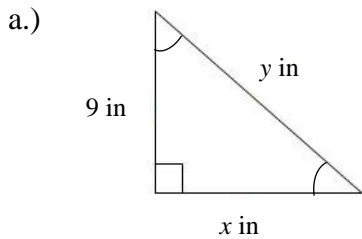


2. Given the three side lengths. Classify the type of triangle.

a.) 21, 20, 28

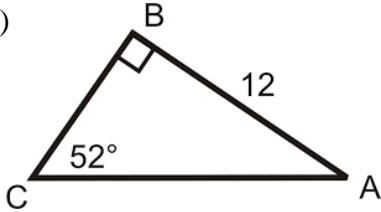
b.) 14, 50, 40

3. Using the rules of special right triangles, find the x and y . **Write answer in simplest radical form.**

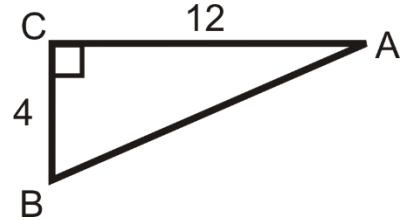


4. Solve each right triangle.

a.)



b.)



BC= _____, $m\angle A$ = _____, CA= _____

BA= _____, $m\angle A$ = _____, $m\angle B$ = _____

5. When getting off an airplane there is a ramp from the door to the ground. The airplane door is 19 feet off the ground and the ramp has a 31° angle of elevation. What is the length of the ramp?

Chapter 8:

6. Find the sum of the measures of the interior angles of a 18-gon.

7. Find the sum of the measures of the exterior angles of 14-gon.

8. Find the measure of one exterior and interior angle of a regular 24-gon.

Interior angle: _____

Exterior angle: _____

9. The diagonals of rhombus PQRS intersect at T. Given that $m\angle RPS = 28^\circ$ and $RT = 6$ ft find the indicated measure. Round answers to the nearest tenth.

a.) $m\angle QTP$

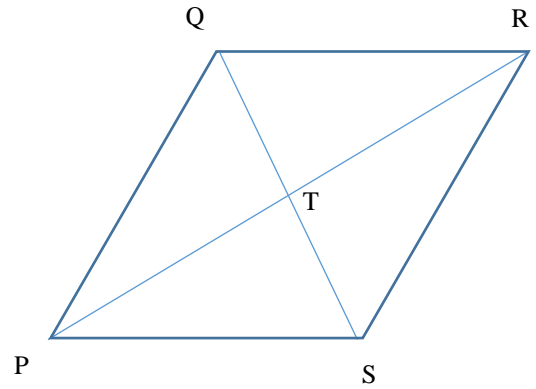
b.) $m\angle QPR$

c.) $m\angle PSR$

d.) TP

e.) PR

f.) PS



10. The diagonals of rectangle WXYZ intersect at P. Given that $m\angle YXZ = 54^\circ$ and $XZ = 18$ in, find the indicated measure. Round answers to the nearest tenth.

a.) $m\angle WXZ$

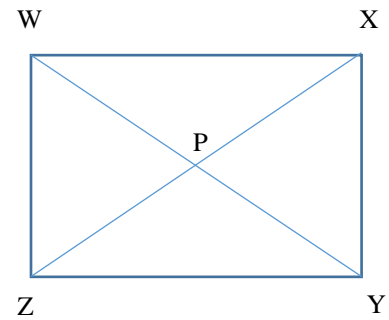
b.) $m\angle WPX$

c.) $m\angle XPY$

d.) PZ

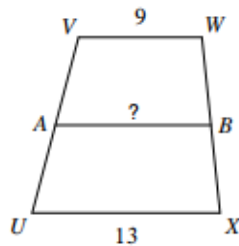
e.) PY

f.) YZ

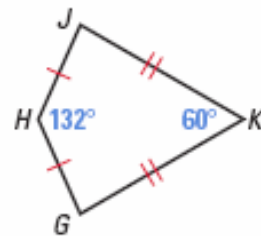


11. Find the length of the midsegment of trapezoid UVWX

AB = _____



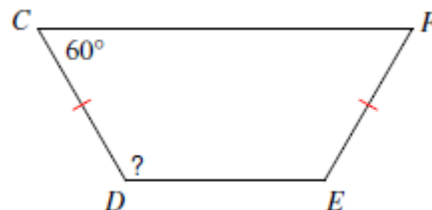
12. Find $m\angle J =$ _____



13. If $CD = 15$ cm, find the measures below:

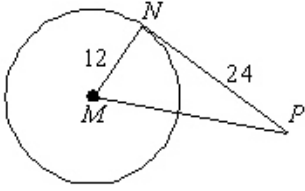
$m\angle F =$ _____ $m\angle D =$ _____

$m\angle E =$ _____ $EF =$ _____

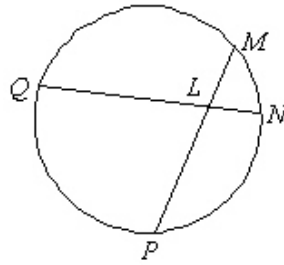


Chapter 10:

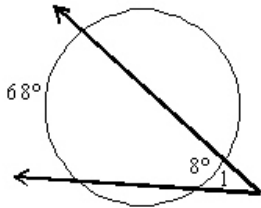
14. \overline{NP} is tangent to $\odot M$ at N. Find MP.



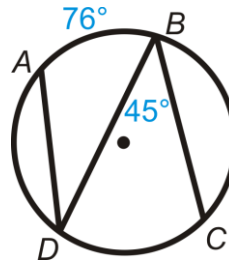
15. Given: $m\widehat{MN} = 14^\circ$ and $m\widehat{QP} = 100^\circ$. Find $m\angle QLP$.



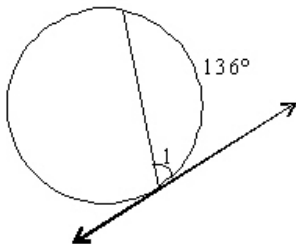
16. Find the measure of $\angle 1$



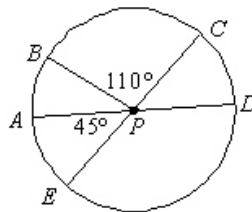
17. Find $m\angle ADB$ and $m\widehat{DC}$



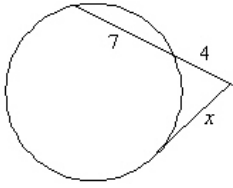
18. Find the measure of $\angle 1$



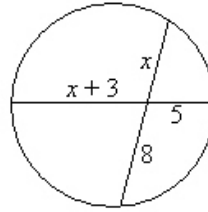
19. Find \widehat{DC} , $m\widehat{BC}$, $m\widehat{BA}$, if \overline{CE} and \overline{AD} are diameters.



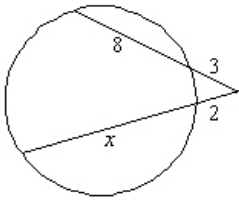
20. Find the value of x .
Round to nearest tenth.



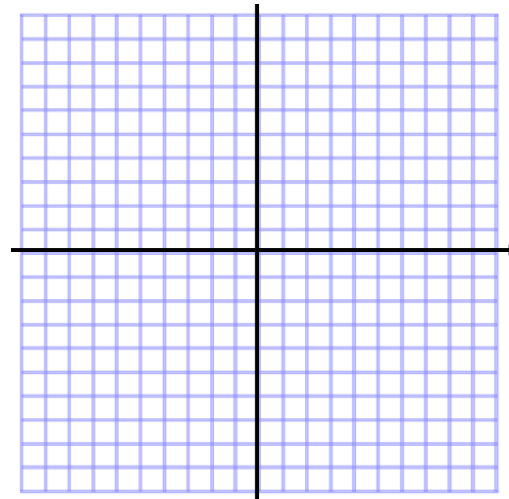
21. Find the value of x .



22. Find the value of x .



23. Graph the equation: $(x - 5)^2 + (y + 4)^2 = 9$



24. Find the center and radius of a circle that has the standard equation: $(x + 6)^2 + (y - 3)^2 = 49$

25. Write the standard equation of the circle with the given center and radius

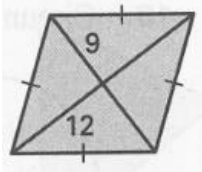
a.) Center $(9, -2)$, Radius 8

b.) Center $(-3, 6)$, Radius 1.4

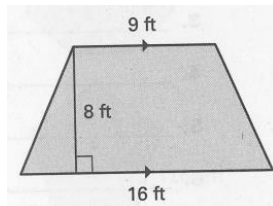
Chapter 11:

Find the area of the figure- label your answers.

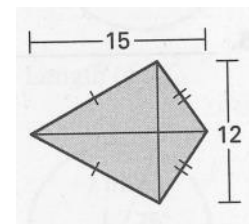
26.

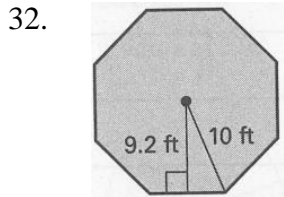
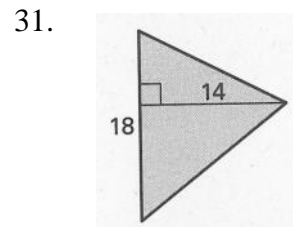
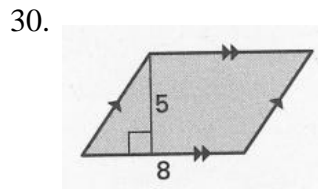
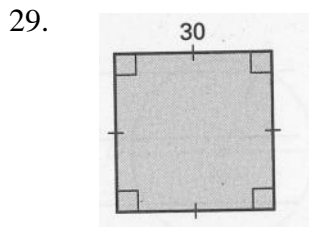


27.

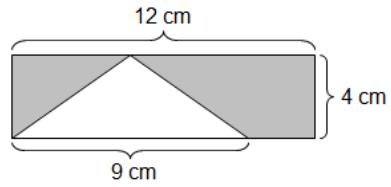


28.

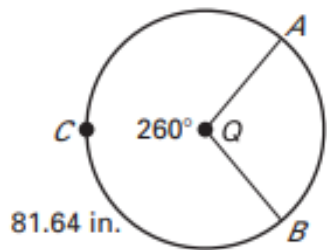




33. Area of the shaded region



34. Use $\odot Q$ to find the indicated measures. Round to the nearest hundredth if necessary and label your answers.



a.) $m\widehat{ACB}$

b.) Arc Length \widehat{ACB}

c.) Radius of $\odot Q$

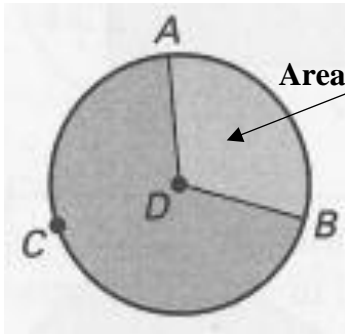
d.) $m\widehat{AB}$

e.) Arc Length \widehat{AB}

f.) Circumference of $\odot Q$

g.) Area of $\odot Q$

35. The area of $\odot D$ is 113.1 m^2 . The area of sector ADB is 34.6 m^2 . Find the indicated measure. Round to the nearest hundredth if necessary and label your answers.



a.) Radius of $\odot D$

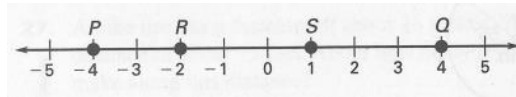
b.) Circumference of $\odot D$

c.) $m\widehat{AB}$

d.) Length of \widehat{ACB}

Area of $\odot D$ is 113.1 m^2

36. Find the probability that a point k , selected randomly on \overline{PQ} , is on the given segment. Express your answer as a fraction, decimal and percent.

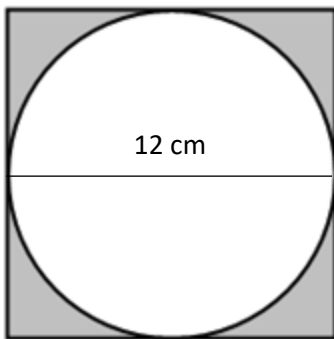


a.) \overline{RS}

b.) \overline{PQ}

c.) \overline{RQ}

37. Find the probability that a point chosen at random lies inside the square and outside the circle in the shaded region. (Round to the nearest hundredth if needed.)



Chapter 12:

Use Euler's Theorem to find the value of n .

38. Faces: 10
Vertices: 14
Edges: n

39. Faces: 9
Vertices: n
Edges: 21

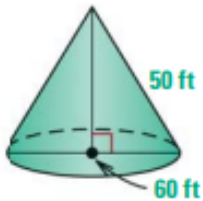
40. Faces: n
Vertices: 18
Edges: 27

For each of the following solids, provide the specific name, surface area, and volume. Round to the nearest hundredth and label your answers.

41. Name: _____

SA= _____

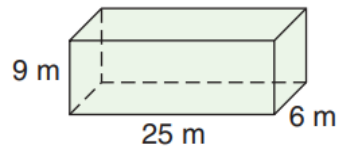
V= _____



42. Name: _____

SA= _____

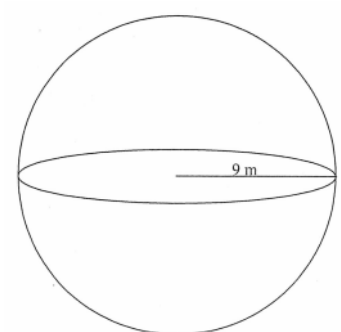
V= _____



43. Name: _____

SA= _____

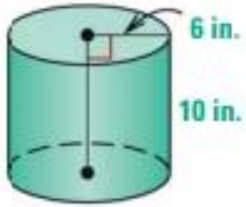
V= _____



44. Name: _____

SA= _____

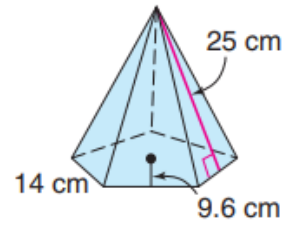
V= _____



45. Name: _____

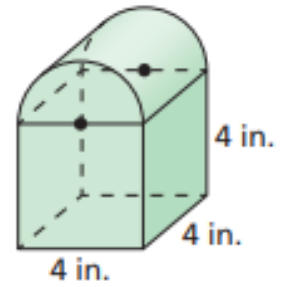
SA= _____

V= _____

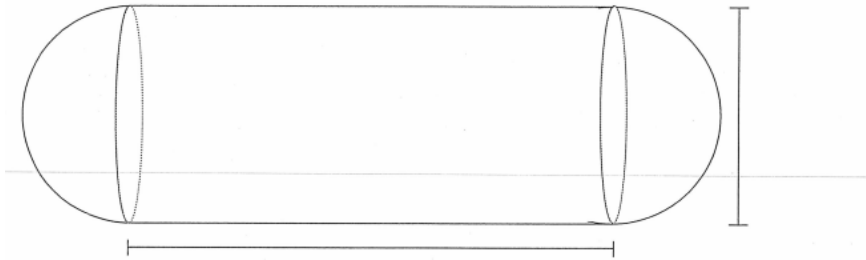


46. SA= _____

V= _____



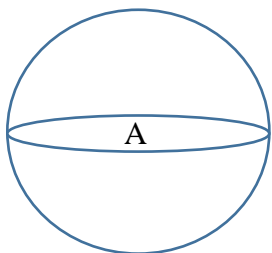
47. The liquid propane (LP) tank below is cylindrical in shape with a hemisphere on each end. The tank has an overall length of 20 feet and a diameter of 5 feet. Determine the volume and surface area of the tank.



48. Fill in the chart

Ratio of perimeter/corresponding lengths (scale factor)	Ratio of Areas (surface area)	Ratio of Volumes
4:7		
	121:25	
		$27\pi:64\pi$

49. Solid A (shown) is similar to Solid B (not shown) with the given scale factor of A to B. Find the surface area and volume of Solid B.



Scale factor of 3:2
 $SA = 324\pi \text{ in}^2$
 $V = 972\pi \text{ in}^3$