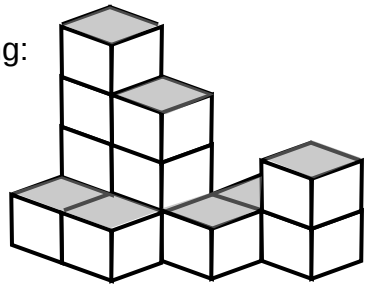
NAME_____**DATE**_____**PER.**_____

GEOMETRY SPRING SEMESTER REVIEW

PART 1. AREA & VOLUME OF PRISMS

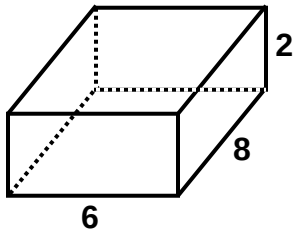
Draw the indicated views for the isometric drawing below.

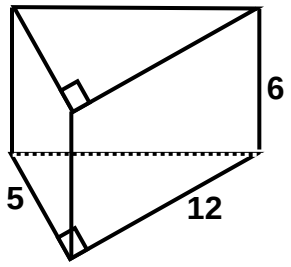
Isometric Drawing:  **Front**	1. Top View:
2. Left View:	3. Front View:

Draw a net that when folded would produce the indicated three-dimensional figure.

4. Triangular Prism	
5. Hexagonal Prism:	

Find the indicated measure for each of the prism described below. Write your final answer, with its corresponding units, in the blank provided.

6. V = _____	

7. V = _____	Find the volume of a cube with a base edge of 3 cm.
8. TA = _____	Find the Total Area of the right triangular prism. 

Find the correct answer for each of the following. Write your final answer, with corresponding units, in the blank provided.

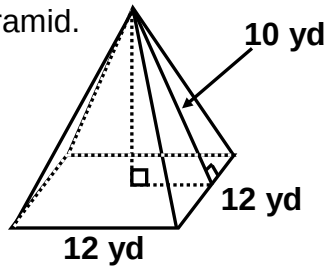
9. V = _____	The volume of a rectangular prism is 64 cubic feet. If one dimension were reduced to one-sixteenth it original length, a second dimension were doubled, and a third dimension remained unchanged, what would be its new volume?

PART 2. AREA & VOLUME OF PYRAMIDS

Draw a net that when folded would form the indicated three-dimensional object.

10. Square Pyramid:	
11. Pentagonal Pyramid:	

Find the indicated measure for each of the following pyramids. Leave answers in simplest form. Write your final answer, with its corresponding units, in the blank provided.

12. LA = _____	Find the Lateral Area of the square pyramid. 
13. V = _____	Find the Volume of the square pyramid from # 12.

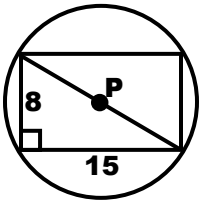
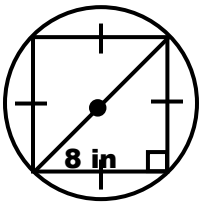
Find the correct answer for each of the following. Write your final answer, with corresponding units, in the blank provided.

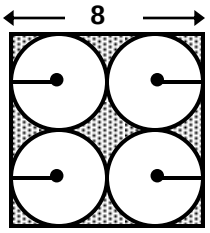
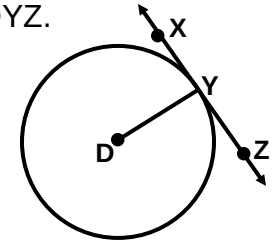
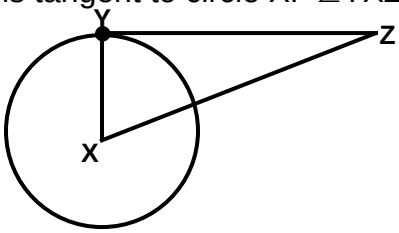
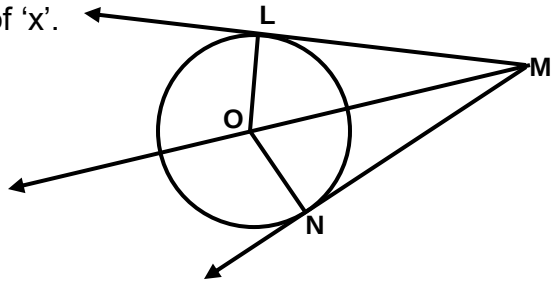
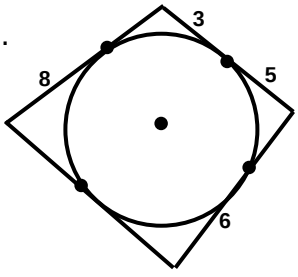
14. V = _____	The Volume of a rectangular pyramid is 192 cubic units. If its dimensions are reduced to one-fourth their original length. What is the Volume of the smaller pyramid?
15. Factor = _____	If the dimensions of a pyramid were increased to three-halves their original length, by what factor would you multiply the original area to obtain the area of the larger pyramid?

PART 3. CIRCLE BASICS
Write the term that best describes the following definitions.

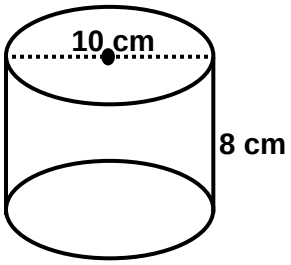
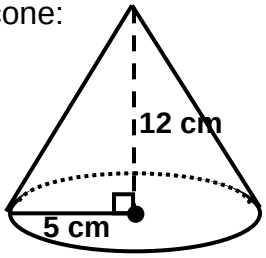
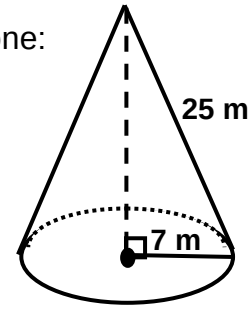
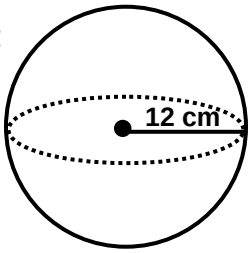
16. _____	**A segment with both endpoints on the circle.**
17._____	**A chord that goes through the center of a circle.**
18._____	**A line or ray that intersects a circle at two points.**
19._____	**A line or ray that intersects a circle at exactly one point.**

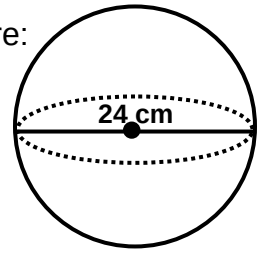
Find the correct answer for each of the following. Write your final answer in the blank provided. Leave your answers in simplest form.

_____20.	In a given circle, the radius is 48 cm. Find the measure of the circle's diameter.
_____21.	In a given circle, the area is 36π. Find the measure of the circles' radius.
_____22.	In a given circle, the diameter is 8 cm. Find the circumference of the circle.
_____23.	Find the area of circle P. 
_____24.	Find the area of the circle: 

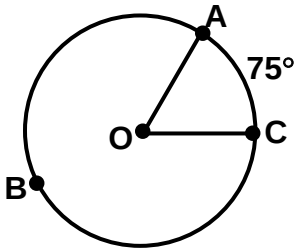
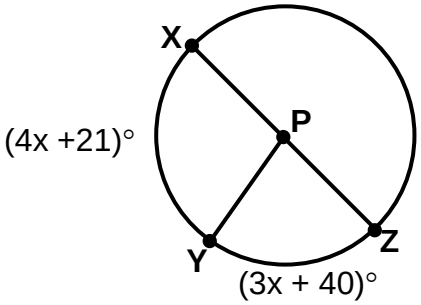
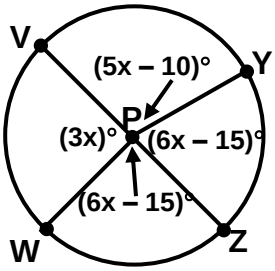
_____25.	Find the EXACT area of the shaded region. 
_____26.	$\overleftrightarrow{XZ}$ is a tangent to circle D at Y. $\overline{DY}$ is a radius. Find the measure of $\angle DYZ$. 
_____27.	$\overline{ZY}$ is tangent to circle X. $\angle YXZ = 60°$, $YZ = 6\sqrt{3}$. Find the length of $\overline{XZ}$. 
_____28.	$\overrightarrow{ML}$ and $\overrightarrow{MN}$ are tangent to circle O. LM = 6x + 2 and NM = 38. Find the value of 'x'. 
_____29.	Find the perimeter of the quadrilateral. 

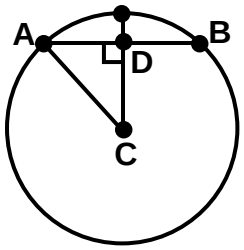
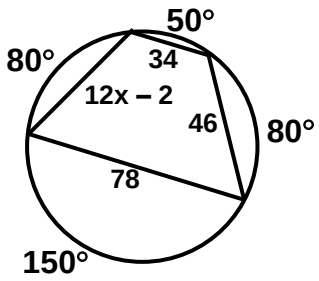
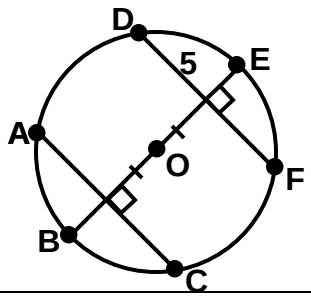
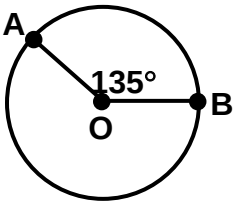
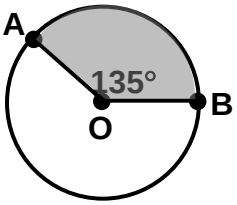
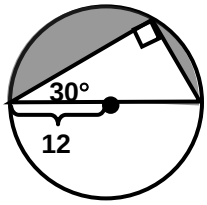
PART 1 CYLINDERS, CONES, & SPHERES
Find the correct answer for each of the following. Leave your answers in simplest form. Write your final answer, with its corresponding units, in the blank provided.

_____30.	Find the Volume of the cylinder: 
_____31.	The Lateral Area of a right circular cylinder is 60π square meters. The height is 12 m. Find the diameter of the base.
_____32.	Find the Lateral Area of the right circular cone: 
_____33.	Find the Volume of the right circular cone: 
_____34.	The Volume of a right circular cone is 72π cubic centimeters, and its height is 2 cm. Find the length of the radius.
_____35.	Find the Total Area of the sphere: 

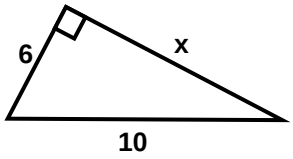
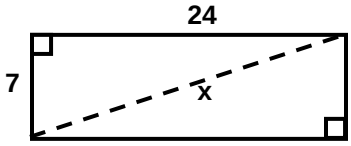
_____36.	Find the Volume of the sphere: 
_____37.	The Total Area of a sphere is 144π square centimeters. Find its diameter.
_____38.	The Volume of a cylinder is 120π m^3. If it's dimensions are reduced to one-half their original length, what would its new Volume be?

PART 2. CENTRAL ANGLES, ARCS, & SECTORS
Find the correct answer for each of the following. Write your final answer in the blank provided. Leave your answers in simplest form.

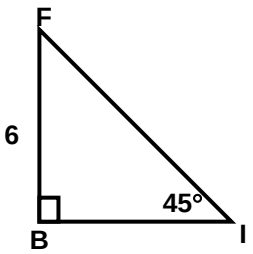
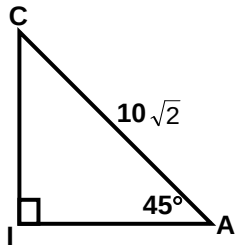
_____39.	In the diagram the measure of $\overset{\frown}{ABC}$ = ? 
_____40.	Given that $\overline{XZ}$ is a diameter, find $\overset{\frown}{YZ}$. 
_____41.	Find the m∠VPY. 

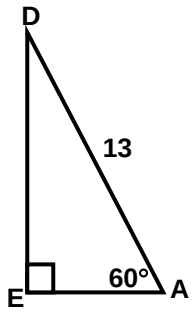
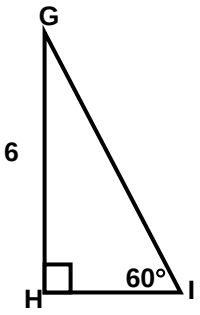
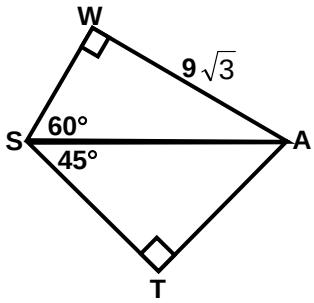
_____42.	If AC = 13 and CD = 5, then find AB. 
_____43.	Find the value of ‘x’. 
_____44.	Find AC. 
_____45.	If r = 6 cm, find the EXACT length of $\overset{\frown}{AB}$. 
_____46.	If r = 6 cm, find the EXACT area of sector AOB. 
_____47.	Find the EXACT area of the shaded region. 

Pythagorean Theorem
For each of the following, find the value of 'x' or the length indicated.

_____48.	
_____49.	
_____50.	A rectangle has a diagonal of 2 cm and a length of $\sqrt{3}$ cm. Find its width.
_____51.	Find the length of a diagonal of a square with a perimeter of 16.

45°-45°-90° & 30°-60°-90° Triangles
For each of the following, find the indicated lengths.

52. FI = _____ BI = _____	
53. CI = _____ IA = _____	

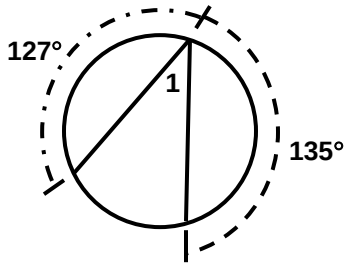
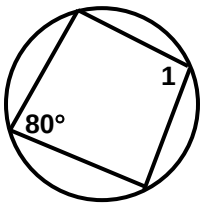
54. DE = _____ EA = _____	
55. GI = _____ HI = _____	
56. SW = _____ SA = _____ ST = _____ TA = _____	

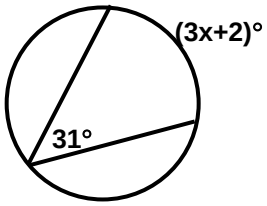
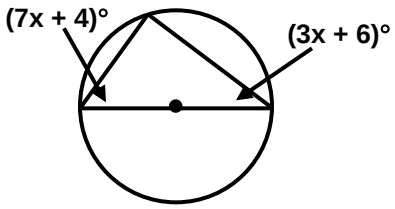
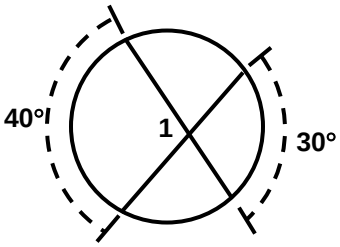
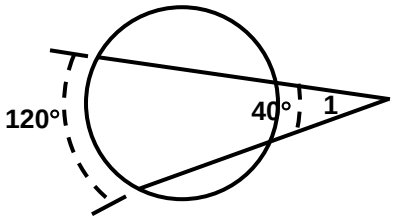
APPLICATIONS OF RIGHT TRIANGLES
For each of the following, find the indicated value.

_____57.	Sarah headed north from her house on Texas street for 20 feet. She then headed west on University Drive and went 15 feet. How far from home was she?

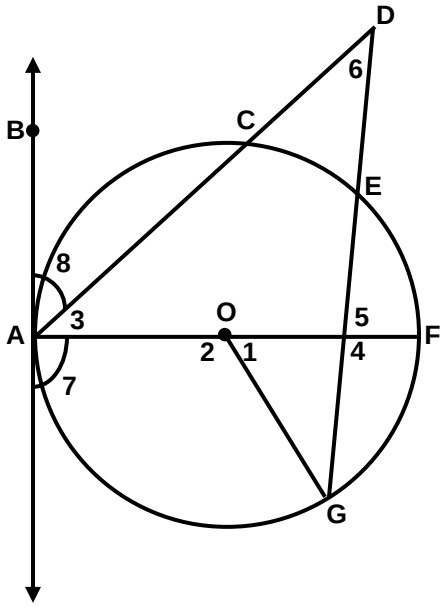
_____58.	To secure a tailgating tent, a 25-inch cord is extended from the top of a vertical pole to the ground. If the cord makes a 30° angle with the ground, how tall is the pole?
_____59.	If you had a 15 foot ladder, How far away from the base of a wall would you have to put it to reach a window 12 feet up?
_____60.	A tree broke 6 feet from the bottom. If the top of the tree landed 7 feet from the base of the tree, how tall was the tree originally? Round to the nearest thousandth.

CIRCLES & ANGLES
Find the indicated measure for each of the following.

61. m∠1 = _____	Find the m∠1. 
62. m∠1 = _____	Find the m∠1. 

63. x = _____	Find the value of 'x'. 
64. x = _____	Find the value of 'x'. 
65. m∠1 = _____	
66. m∠1 = _____	

$\overleftrightarrow{AB}$ is tangent to circle O. $\overline{AF}$ is a diameter. m$\overset{\frown}{AG}$ = 100°, m$\overset{\frown}{CE}$ = 30° and m$\overset{\frown}{EF}$ = 25°. Find each of the following.

67. m∠1 = _____	
68. m∠2 = _____	
69. m∠ 3 = _____	
70. m∠4 = _____	
71. m ∠ 5 = _____	
72. m∠6 = _____	
73. m∠7 = _____	74. m∠8 = _____

_____**75)** Point *A* is located at (4, ⁻7). The point is reflected in the *x*-axis. Where is the image of *A* located?

Ⓐ (⁻4, ⁻7)
Ⓑ (4, 7)
Ⓒ (7, ⁻4)
Ⓓ (⁻4, 7)

_____**76)** What are the coordinates of point *P*, the image of point (3, ⁻4) after a reflection in the line *y* = *x*?

Ⓐ (3, 4)
Ⓑ (⁻3, 4)
Ⓒ (4, ⁻3)
Ⓓ (⁻4, 3)

_____**77)** What are the coordinates of the image of point (⁻2, 6) after a reflection in the *y*-axis?

Ⓐ (2, ⁻6)
Ⓑ (6, ⁻2)
Ⓒ (2, 6)
Ⓓ (⁻2, ⁻6)

_____**78)** What is the image of point (⁻3, 2) after a reflection in the origin?

Ⓐ (⁻2, ⁻3)
Ⓑ (3, ⁻2)
Ⓒ (⁻3, ⁻2)
Ⓓ (⁻2, 3)