Geometry II Test #4 Name:_____
Brewer 11 May 2016

Part I. Match the expression on the left with the formula on the right that best matches it. Print the letters neatly next to each number. If I can't tell what letter you wrote, it will be marked incorrect.
A_b is the area of a base. P_b is the perimeter of a base. r is a radius. h is an altitude. l is a lateral height.

1. _____ Surface area of a prism
2. _____ Surface area of a cylinder
3. _____ Surface area of a sphere
4. _____ Volume of a prism
5. _____ Volume of a cylinder
6. _____ Volume of a sphere
7. _____ Volume of a cone
8. _____ Volume of a pyramid
9. _____ Area of a regular n-sided polygon
10. _____ Perimeter of a regular n-sided polygon

A. $2\pi rh + 2\pi r^2$
B. $4\pi r^2$
C. $\frac{1}{3}\pi r^2 h$
D. $A_b h$
E. $2nr\sin\frac{180}{n}$
F. $2A_b + P_b h$
G. $\frac{1}{3}A_b h$
H. $\frac{4}{3}\pi r^3$
I. $nr^2\cos\frac{180}{n}\sin\frac{180}{n}$
J. $\pi r^2 h$

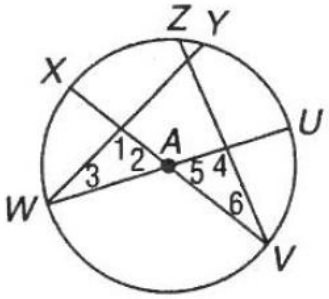
Part II. Fill in the blank to complete the statements about angles and chords.

11. Inscribed angles that intersect the same arc are _____.
12. If a line through the center of a circle is _____to a chord, it also bisects the chord.
13. An angle inscribed in a semicircle is _____.
14. A secant angle whose vertex is _____ a circle is equal in measure to half the difference of its larger and smaller intercepted arcs.
15. A secant angle whose vertex is _____ a circle is equal in measure to half the sum of the arcs intercepted by it and its vertical angle.
16. The measure of an inscribed angle is _____ the degree measure of its intercepted arc.

Part III. Find the requested area, volume, edge length, etc. <u>to the nearest tenth</u>. Circle/box your final answer.

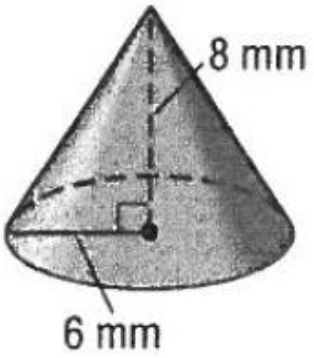
17. Find the degree measure of angle 1.

$m\widehat{UY} = m\widehat{XZ} = 56$ and
$m\widehat{UV} = m\widehat{XW} = 56$



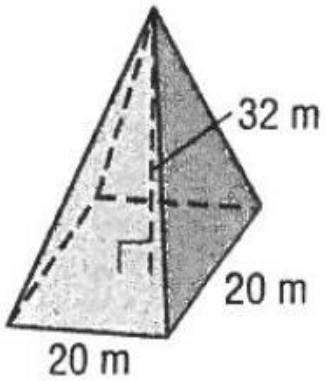
For the given cone,

18. Find the volume of the cone.

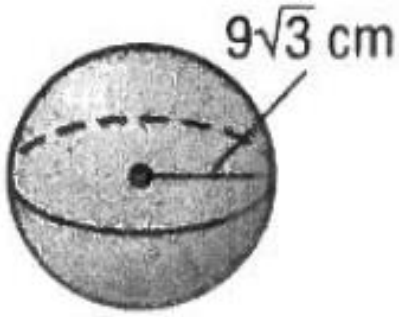


For the given pyramid,

19. Find the volume of the pyramid.



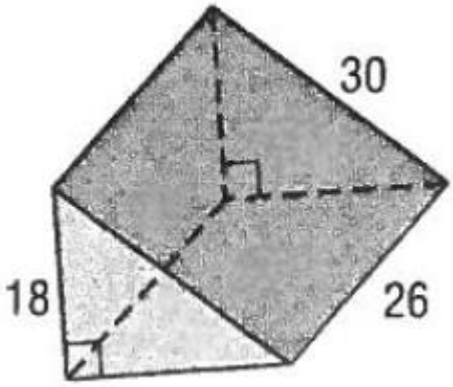
For the given sphere,



20. Find the volume of the sphere.

21. Find the surface area of the sphere.

For the given prism,



22. Find the volume of the prism.

23. Find the surface area of the prism.