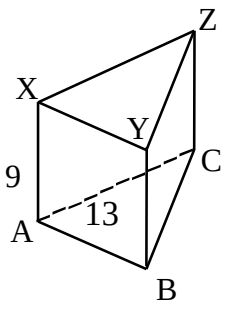
Name_____ Date_____

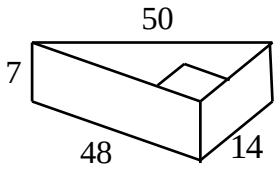
Chapter 11 & 12 – Final Review

Find the volume of the following. All measurements are given in centimeters.

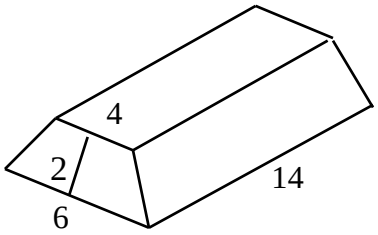
1) In the right prism shown, AC = BC = 13, and AX = 9 and AB = 10.



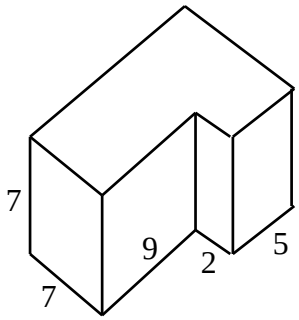
2)



3) Right Prism with trapezoidal bases

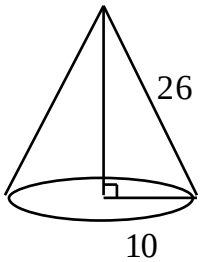


4) Find the volume. All angles are right angles. Measurements are in meters.

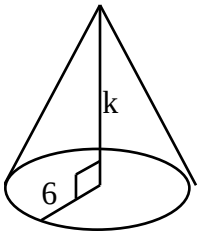


Solve each problem. Measurements are given in centimeters.

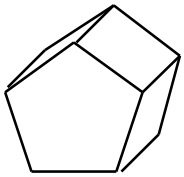
5) Find the volume using 3.14 for π. The radius is 10 and slant height is 26.



6) Find k if the volume of the cone below is $144\ \pi$ cm^3



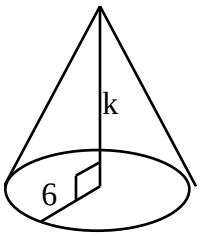
7) The following is a heptahedron.



a) How many edges are there? _____

b) How many vertices are there? _____

6) Find k if the volume of the cone below is $144\ \pi$ cm^3

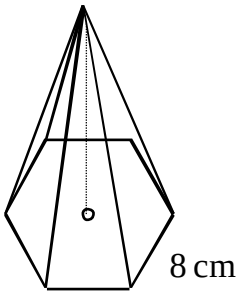


7) What is the height of a cylinder with a volume of 288π cm^3 if its is radius equal to 12 cm.?

8) A 10 cm tall cylindrical glass 6 cm in diameter is filled to one cm from the top with water. If a **golf ball** 4 cm in diameter is **dropped** into the glass, will the **water overflow**?

9) A cylindrical can of tennis balls has an inside diameter of 8 cm. and a height of 22 cm. If the diameter of a tennis ball is 7 cm., how much of the **space**(nearest cubic centimeter) in a tennis ball can is **not occupied** by the three **balls**?

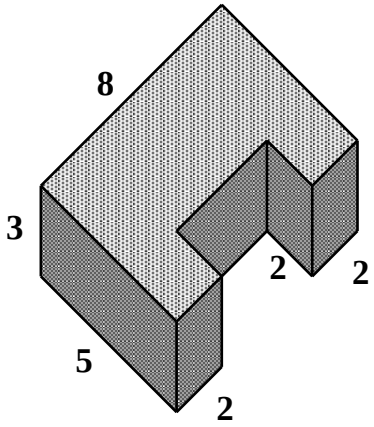
10) Find the volume to the nearest cm^3 of a pyramid with height 14 cm with a regular hexagon for a base if each side of the hexagon has length 8 cm. Find volume to **nearest whole number**.



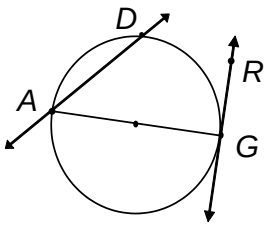
11) The rocket consists of a hemisphere (half a sphere), a cylinder, and a cone. Find the **volume** of the submarine in terms of π.

<---------- 15 ---------->

12) Find the volume. All angles are right angles.



13) Give an example from the figure of each of the following.



a. Tangent _____

b. Chord _____

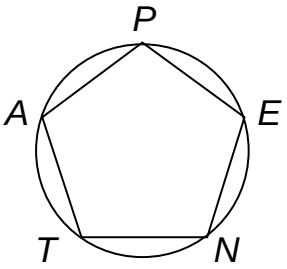
c. Secant _____

d. Minor arc _____

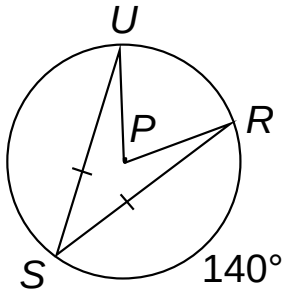
e. Semicircle _____

14) *PENTA* is a regular pentagon inscribed in a circle.

mPE = _____

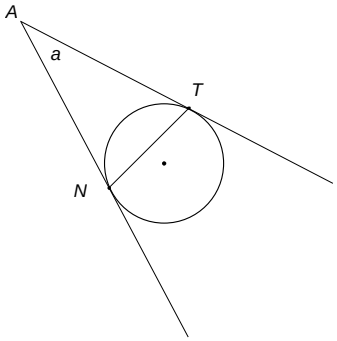


15) $m\angle P$ = _____

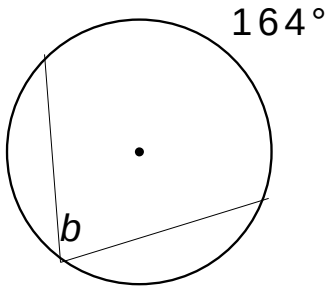


16) $\overline{AT}$ *and* $\overline{AN}$ *are tangents.* $m\angle ATN = 72°$

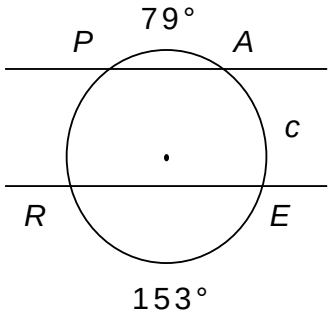
$a =$ _____



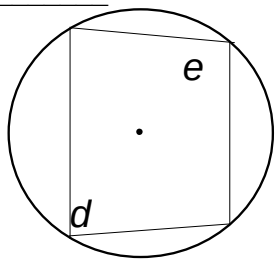
17) $b =$ _____



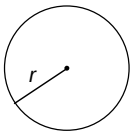
18) $\overline{PA} \parallel \overline{RE}$ $c =$ _____



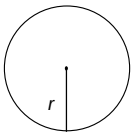
19) $d + e =$ _____



20) The circumference is 120π cm. r = _____



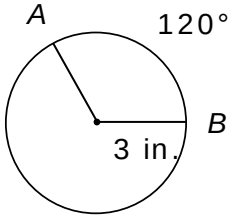
21) Find the circumference.
r = 8.1 cm. Use 3.14 for π. $c \approx$ _____



22) If the diameter of the moon is 3475 km and an orbiting lunar station is circling 21 km above the lunar surface, find the distance traveled by the lunar station in one orbit.

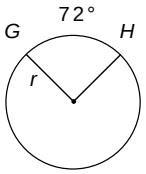
Distance ≈ _____

23) Arc length of arc AB = _____

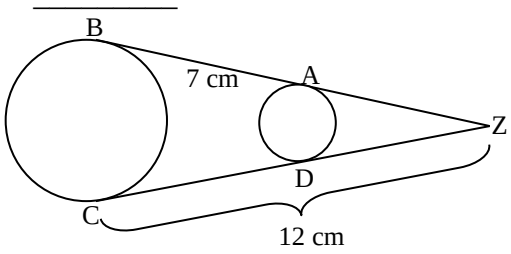


24) If the arc length of arc $GH = 8\pi$ cm.

$r =$ _____

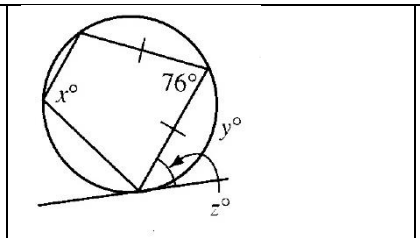


25) Find the measure of segment AZ.

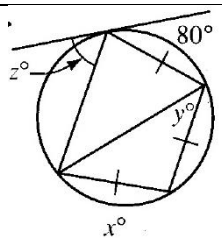


Find the missing angle measures.

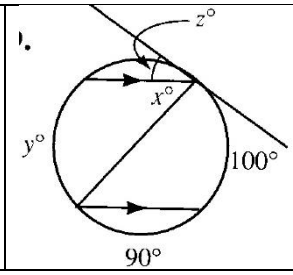
26)



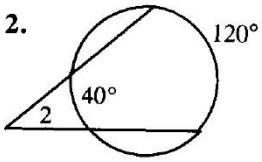
27)



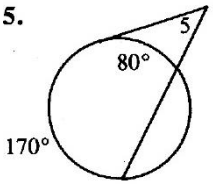
28)



29) Find $\angle 2$

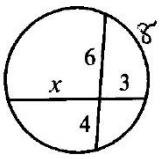


30) Find $\angle 5$

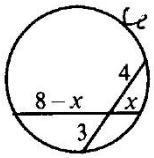


Find the missing variable.

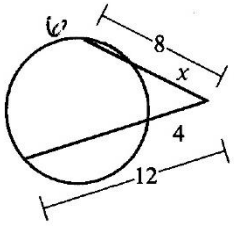
31)



32)



33)



$6\sqrt{125}$