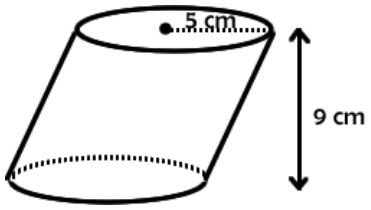
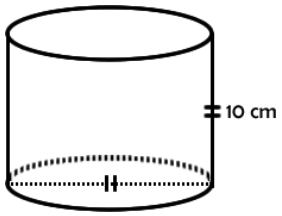
WORKSHEET 10-2 R Name _____ Due _____ Section_____

1. Determine the volume of the cylinder in terms of π.

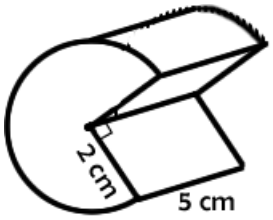
a)



b)

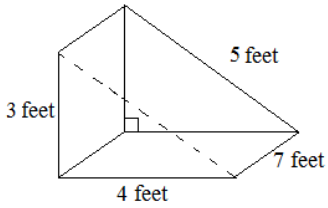


c)

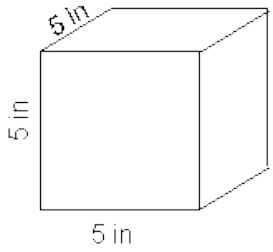


2. Determine the volume of each of the following right prisms to the nearest whole cubic inch.

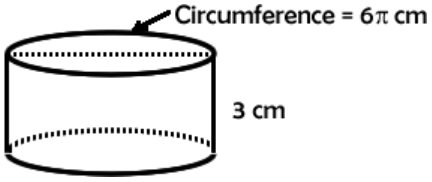
a)



b)

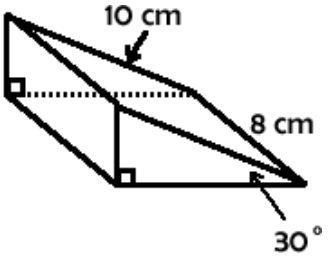


3. Determine the volume of the solid in terms of π. *Hint: you need to find the radius first!*

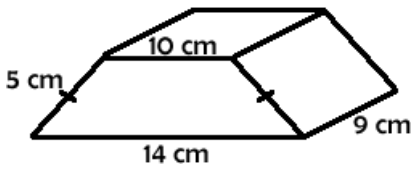


4. Determine the volume of each of the following prisms to the nearest tenth. First solve for the missing dimension.

a. Right Triangular Prism



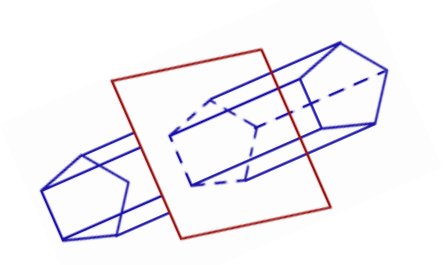
b. Right Trapezoidal Prism



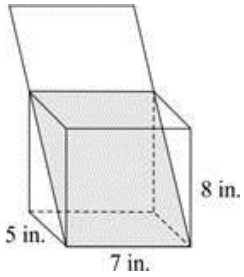
5. The shape of a slice of a cylinder may be any of the following except
   A) Rectangle
   B) Triangle
   C) Circle
   D) Ellipse

6. Which of the following could NOT be the shape of a slice of a prism?
   a. Parallelogram
   b. Circle
   c. Triangle
   d. Hexagon

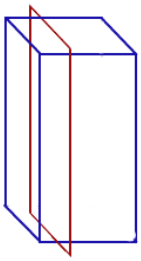
7. Describe the slice/cross section formed by the intersection of the plane with each prism:



Plane is parallel to bases



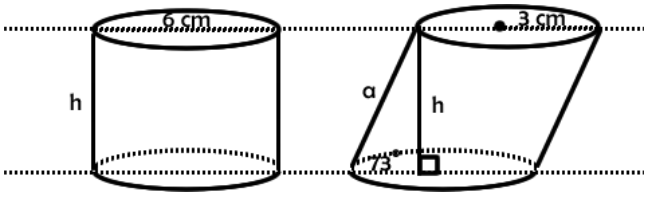
Plane is through 2 lateral edges



Plane is ⊥ to square bases

8. Draw an example of cylinder with a parallelogram slice:

9. Ryllie looks at the two cylinders below and says that the oblique cylinder has less volume because it is at an angle. The volume for the right cylinder is $V = \pi(3)^2(h)$ and the volume for the oblique cylinder is $V = \pi(3)^2(\sin 73°)(h)$ because it is at an angle. Is she correct?



10. Jenny says that the two prisms DO NOT have the same volume because the cross sections are not the same. Renee disagrees; she says that it isn't the shape that has to be the same but rather the area so Renee thinks they have the same volume. Who is right and why?