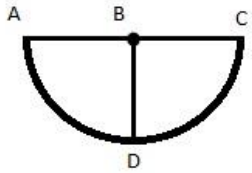
Name: _____ Geometry
Date: _____ Review
Class: _____

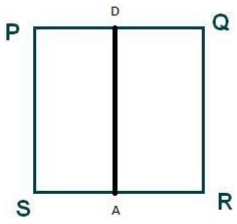
Rotating a 2-D object to get a 3-D object

1) 

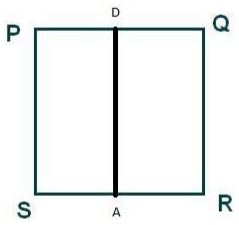
In the following diagram AB = BC = BD and $\overline{AC} \perp \overline{BD}$. If this shape is rotated continually around AC what would be created?
1) circle 2) cone 3) cylinder 4) sphere

2) In the diagram for number 1, AB = BC = BD = 5in $and\ \overline{AC} \perp \overline{BD}$. If this shape was rotated continually around segment BD what would the volume of the resulting figure be?

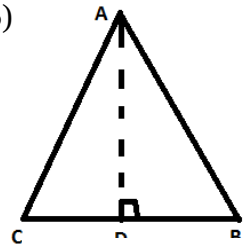
1) $\frac{250}{3}\pi$ 2) $\frac{500}{3}\pi$ 3) $\frac{25}{2}\pi$ 4) 25π

3) 

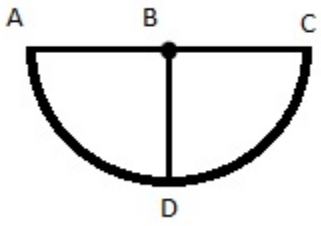
PQRS is a parallelogram with PQ=QR and $\overline{PQ} \perp \overline{QR}$. If PQ = 10in and PQRS is rotated continually around $\overline{DA}$ what would the resulting volume be (D and A are midpoints of their respective sides)?

4) 

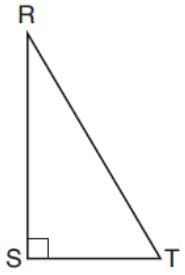
PQRS is a parallelogram with $\overline{PQ} \cong \overline{QR}$ and $\overline{PQ} \perp \overline{QR}$. SR = 10in, if PQRS is rotated continually around $\overline{DA}$ what figure is created and what is its radius (D and A are midpoints)?
1) cone, r = 10 2) cylinder, r = 10
3) cone, r = 5 4) cylinder, r = 5

5) 

ABC is a isosceles triangle with $\overline{AC} \cong \overline{AB}$ and $\overline{AD} \perp \overline{CB}$. CB = 10in, if ABC is rotated continually around $\overline{DA}$ what figure is created and what is its radius?
1) cone, r = 10 2) cylinder, r = 10
3) cone, r = 5 4) cylinder, r = 5

6) 

If this shape is rotated around BD continually what shape will be created? (BA = BC = BD) Draw a sketch of the shape. ($\overline{BD} \perp \overline{AC}$)

7) 

If this shape was rotated so that segment RS rotated around point R, what two three dimensional shapes could be used to describe what is created?

8) If you rotated the image in #7 continually around segment ST what shape would you get?

9) If you are rotating a shape that we have used this year in Geometry, would it be possible to create a pyramid or a prism? Why or why not?