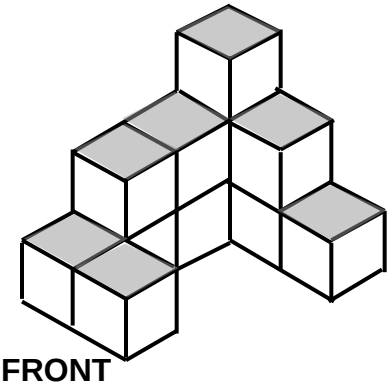
NAME_____**DATE**_____**PER.**_____

REVIEW #13: SURFACE AREA & VOLUME OF PRISMS & CYLINDERS

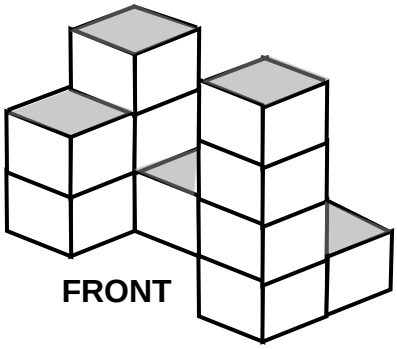
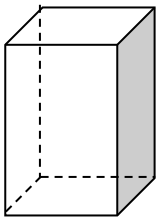
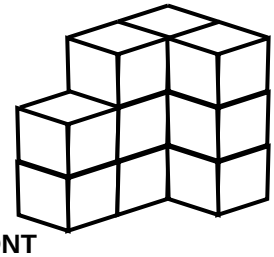
REVIEW

PART 1: View of 3-Dimensional Objects, Nets & Cross Sections

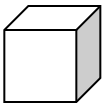
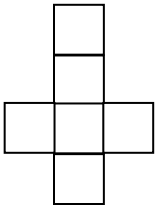
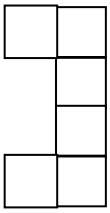
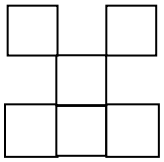
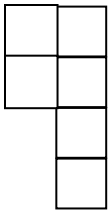
Refer to the isometric drawing below to draw the indicated orthogonal views.

 **FRONT**	**1. FRONT:**	**2. RIGHT SIDE:**	**3. TOP:**

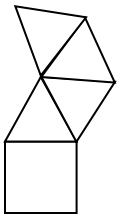
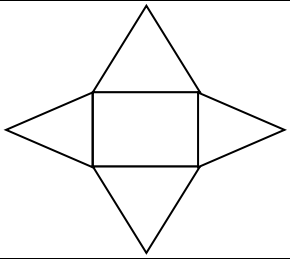
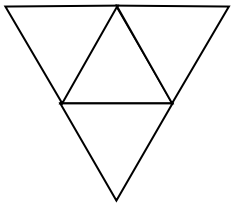
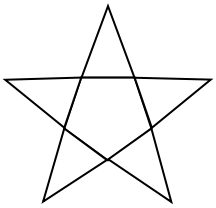
How many squares would be shown in the right-side orthogonal view of the following figure?

 **FRONT**	4. _____
How many lateral edges does this prism have? 	5. _____
How many cubes make up this isometric drawing?  **FRONT**	6. _____

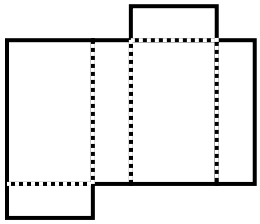
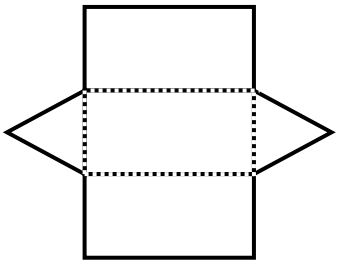
Choose the best answer for the following question.

_____7.	Which of the following is the net for the cube?  A.  B.  C.  D. 

Match each solid name with its corresponding net.

_____8. Rectangular pyramid	A. 
_____9. Triangular pyramid	B. 
_____10. Pentagonal pyramid	C. 
_____11. Square pyramid	D. 

Name the prism formed if each of the following nets were folded to form a three-dimensional solid.

12. _____	
13. _____	

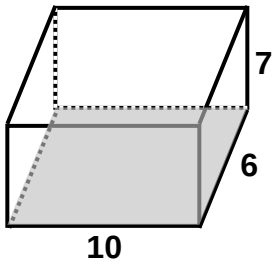
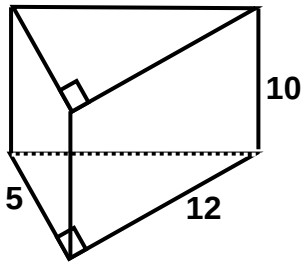
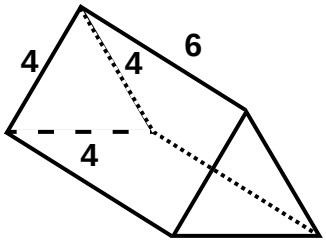
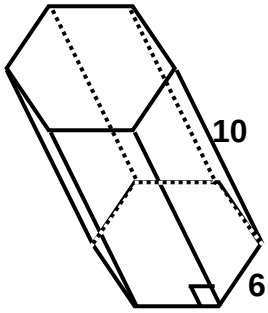
Determine whether each statement is TRUE or FALSE. If FALSE, tell why.

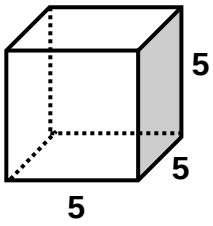
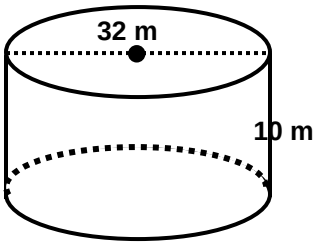
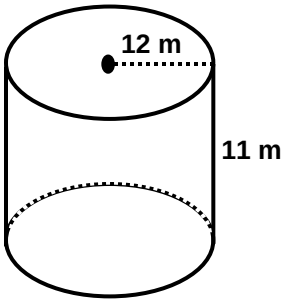
14. TRUE or FALSE Why?	The lateral edge of a pyramid is also its height.
15. TRUE or FALSE Why?	The lateral faces of a regular pyramid are congruent isosceles triangles.
16. TRUE or FALSE Why?	A pyramid that has exactly five faces and five vertices is a square pyramid.

Name the cross section formed when the plane that intersects the following 3-D objects is parallel to the base and when the plane is perpendicular to the base.

17. Parallel:_____ Perpendicular:_____	A trapezoidal prism
18. Parallel:_____ Perpendicular:_____	A hexagonal pyramid with perpendicular plane going through the vertex

PART 2: Surface Area & Volume of Prisms & Cylinders
For each of the following prisms or pyramids, find the a) Lateral Area, b) Total Area, and c) Volume.

19. a)_____ b)_____ c)_____	 ***The shaded face is the base.***
20. a)_____ b)_____ c)_____	
21. a)_____ b)_____ c)_____	
22. a) _____ b) _____ c) _____	

23. a) _____ b) _____ c) _____	
24. LA = _____ TA = _____ V = _____	
25. LA = _____ TA = _____ V = _____	
26. h = _____	A right circular cylinder has a Lateral Area of 48π mm^2 and a radius of 4 mm. Find the height of the cylinder.
27. V = _____	Find the volume of a right circular cylinder with a radius of 6 cm and an altitude of 10 cm.

28. d = _____	The Lateral Area of a cylinder is 100π cm^2. Its height has a length of 10 cm. Find the diameter of the circle.
29. V = _____	Find the volume of a cylinder with surface area of 224π m^2 and a radius of 8m.
30. _____	Find the Total Area of a cube with an edge length of 8 cm.
31. _____	Find the Volume of a cube with edge length of $3\sqrt{2}$ cm.
32. _____	Find the Volume of a rectangular prism with a length of 11 m, width of 7 m, and height of 6 m.
33. _____	Find the Lateral Area of a cube that has a base edge of 7.