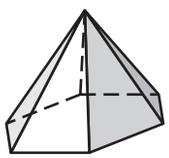
Name _____ Date _____

CHAPTER 12

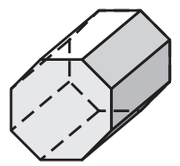
Chapter Test B

For use after Chapter 12

Tell whether the solid is a polyhedron. If it is, find the number of faces, vertices, and edges.

1. 

2. 

3. 

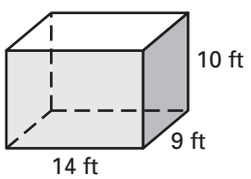
Use Euler's Theorem to find the value of *n*.

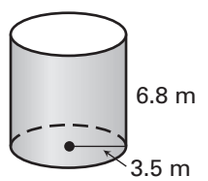
4. Faces: 8
Vertices: 12
Edges: *n*

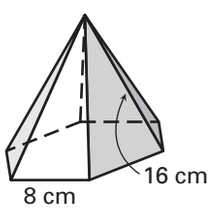
5. Faces: 9
Vertices: *n*
Edges: 21

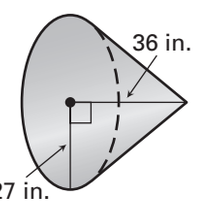
6. Faces: *n*
Vertices: 16
Edges: 24

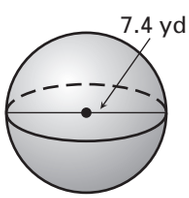
Find the surface area of the solid. The pyramids are regular and the prisms, cones, and cylinders are right. Round your answers to two decimal places, if necessary.

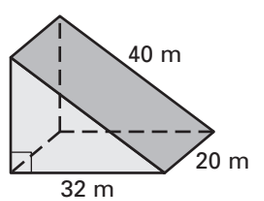
7. 

8. 

9. 

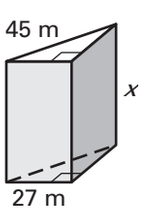
10. 

11. 

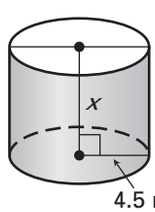
12. 

Solve for *x* given the surface area *S* of the right solid. Round your answer to the nearest meter.

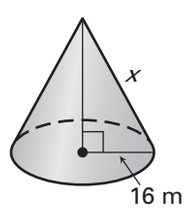
13. $S = 6372\ m^2$



14. $S = 325\ m^2$



15. $2513.3\ m^2$



Answers

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

Name _____ Date _____

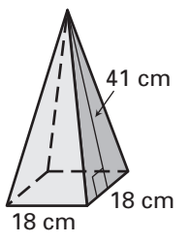
CHAPTER 12

Chapter Test B *continued*

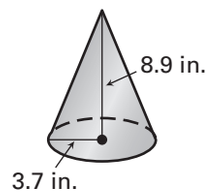
For use after Chapter 12

Find the volume of the solid. The pyramids are regular and the prisms, cones, and cylinders are right. Round your answers to two decimal places, if necessary.

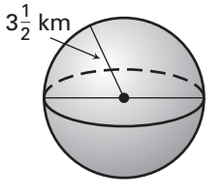
16.



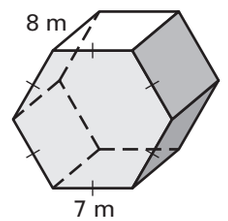
17.



18.

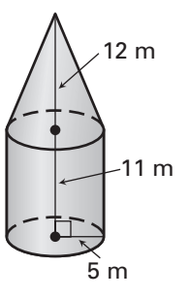


19.

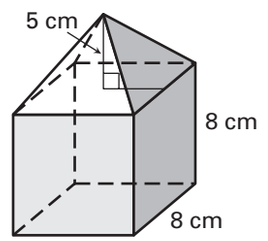


Find the surface area and volume of the solid. The pyramids are regular and the prisms, cones, and cylinders are right. Round your answer to two decimal places, if necessary.

20.

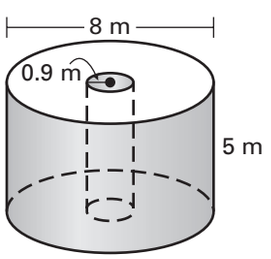


21.

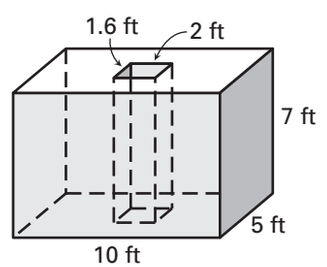


Find the volume of the solid. The cylinders and prisms are right. Round your answer to two decimal places, if necessary.

22.



23.



24. Two cones have a scale factor of 2 : 5. The smaller cone has a surface area of 96π square yards. Find the surface area of the larger cone. Write your answer in terms of π.

25. Two spheres have a scale factor of 3 : 8. The smaller sphere has a volume of about 54π cubic meters. Find the volume of the larger sphere. Write your answer in terms of π.

Answers

16. _____

17. _____

18. _____

19. _____

20. _____

_____

21. _____

_____

22. _____

23. _____

24. _____

25. _____