

# Unit 10 Practice Test: 3-D Geometry

Name: \_\_\_\_\_

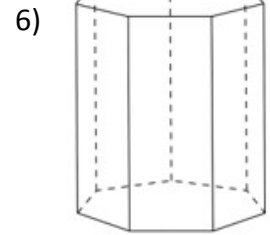
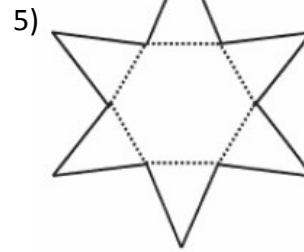
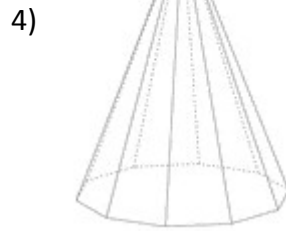
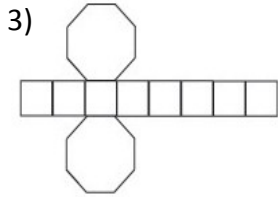
## 7<sup>th</sup> Grade Acc. Math

For 1 & 2, draw the following 3-D shapes. Use a geometer.

1) Hexagonal prism

2) Pentagonal pyramid

For 3–6, identify the following figures.



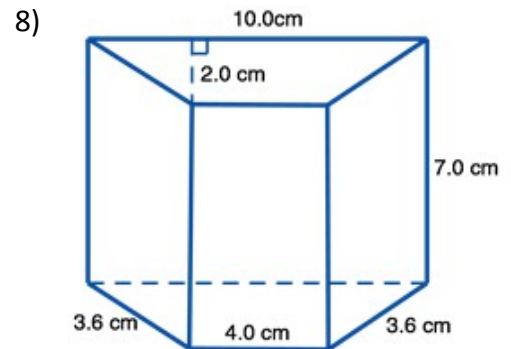
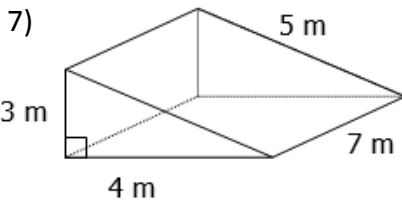
#3 answer: \_\_\_\_\_

#4 answer: \_\_\_\_\_

#5 answer: \_\_\_\_\_

#6 answer: \_\_\_\_\_

For 7–14, evaluate the surface area and volume of the following shapes. Show your work and use units!!

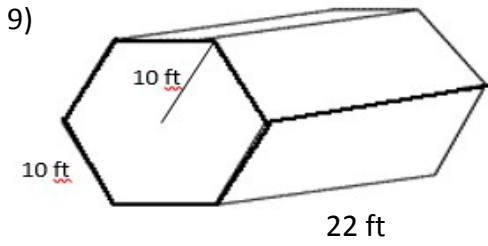


#7 S.A. answer: \_\_\_\_\_

#8 S.A. answer: \_\_\_\_\_

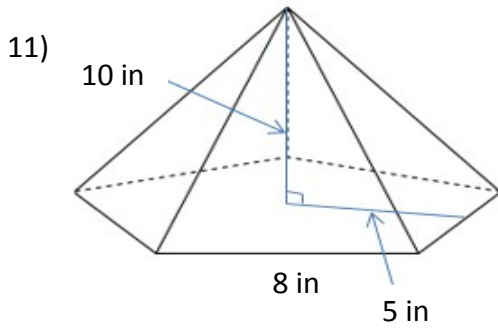
#7 Vol. answer: \_\_\_\_\_

#8 Vol. answer: \_\_\_\_\_



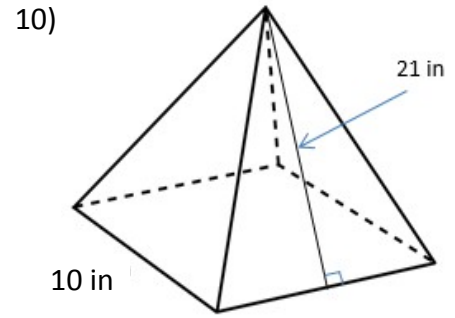
#9 S.A. answer: \_\_\_\_\_

#9 Vol. answer: \_\_\_\_\_



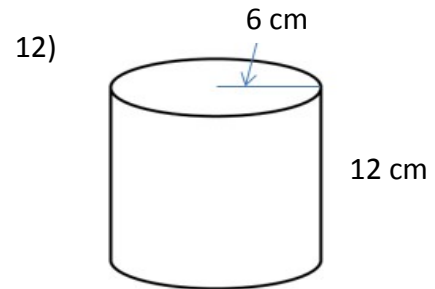
#11 S.A. answer: \_\_\_\_\_

#11 Vol. answer: \_\_\_\_\_



#10 S.A. answer: \_\_\_\_\_

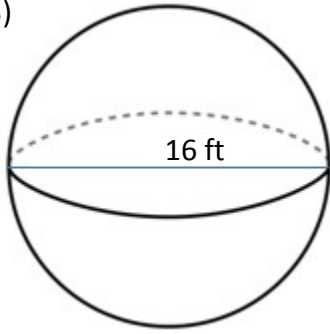
#10 Vol. answer: \_\_\_\_\_



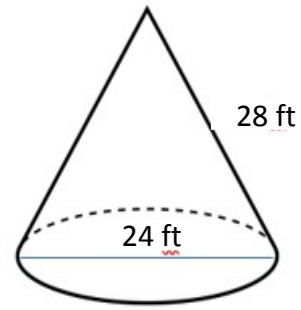
#12 S.A. answer: \_\_\_\_\_

#12 Vol. answer: \_\_\_\_\_

13)



14)



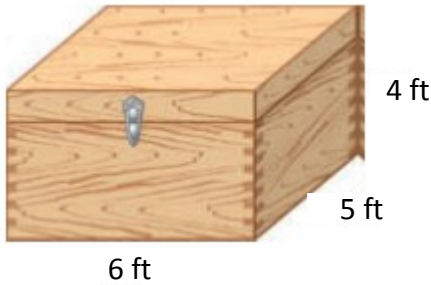
#13 S.A. answer: \_\_\_\_\_

#14 S.A. answer: \_\_\_\_\_

#13 Vol. answer: \_\_\_\_\_

#14 Vol. answer: \_\_\_\_\_

15) You are building a storage box out of plywood using the dimensions shown. Plywood costs \$1.50 per square foot. Evaluate the total cost of the plywood. Show all of your work and don't forget units!!



#15 answer: \_\_\_\_\_

For 16 & 17, a cereal box has a **surface area** of  $175 \text{ in}^2$  and a **volume** of  $300 \text{ in}^3$ . A second cereal box is 3 times larger in every dimension. Show your work and use units.

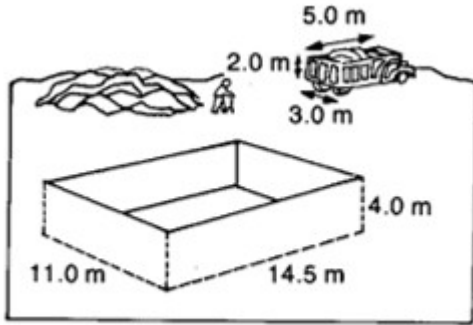
16) Evaluate the surface area of the second cereal box.

#16 answer: \_\_\_\_\_

17) Evaluate the volume of the second cereal box.

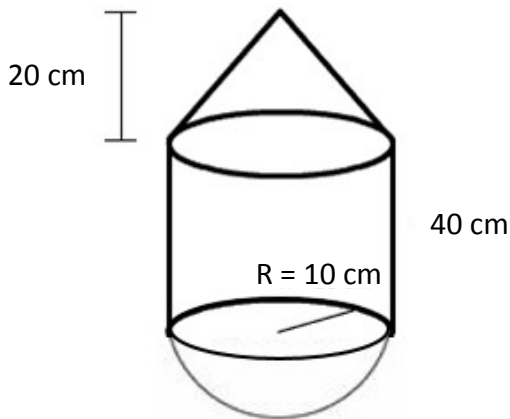
#17 answer: \_\_\_\_\_

18) The excavation for a house and the trucks to carry away the material have the dimensions shown. About how many truck loads are necessary to remove all the dirt? Show your work.



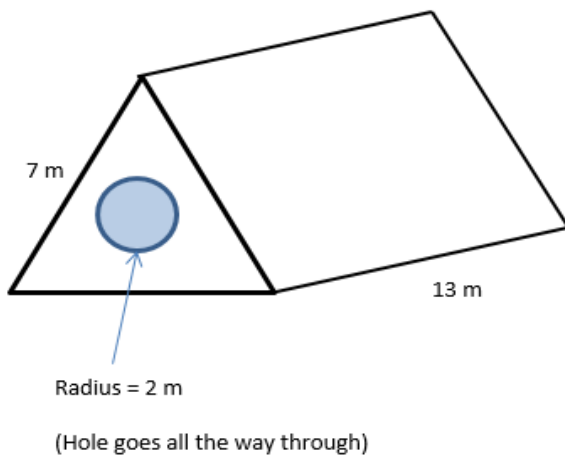
#18 answer: \_\_\_\_\_

19) Evaluate the surface area of the shape. Show your work and use units!!



#19 answer: \_\_\_\_\_

20) Evaluate the volume of the following shape. The triangular bases are equilateral. Show work & use units!



#20 answer: \_\_\_\_\_