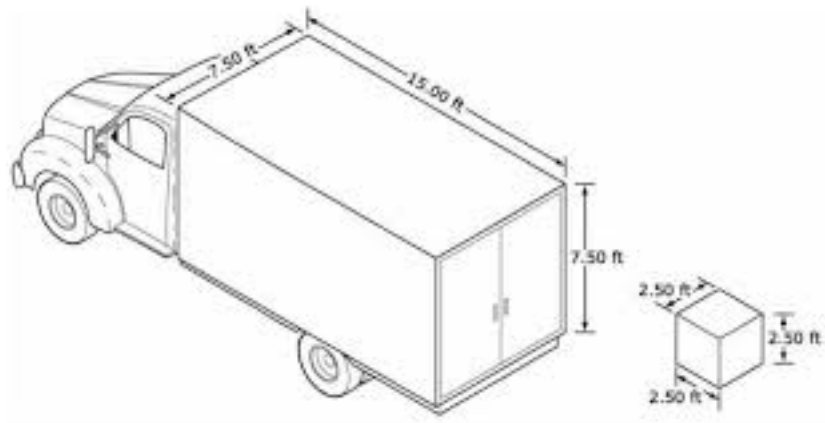


ASSIGNMENT 10-5
VOLUME OF PRISMS

SYW: NO WORK = NO CREDIT
WORK IN PENCIL ONLY!

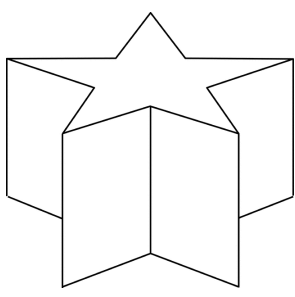
VOLUME OF PRISMS

1. If you were to use the moving truck below. How many boxes with the dimensions shown, could you fit inside the truck?

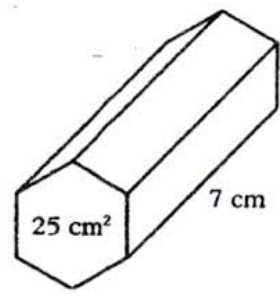


The box is a 2.5 ft. cube

2. Find the volume of the star prism if the area of the base is 50 cm^2 and the height is 7 cm.

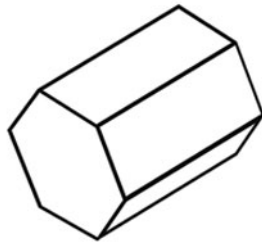
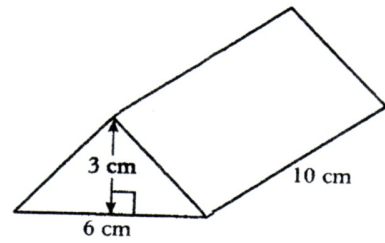


4. Find the volume of the hexagonal prism below.

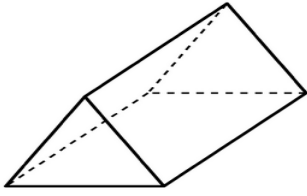


5. If the volume of this hexagonal prism is 750 in.^3 and the height is 10 in., what is the area of the base of the prism?

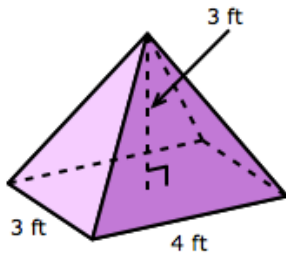
3. Find the volume of the triangular prism below.



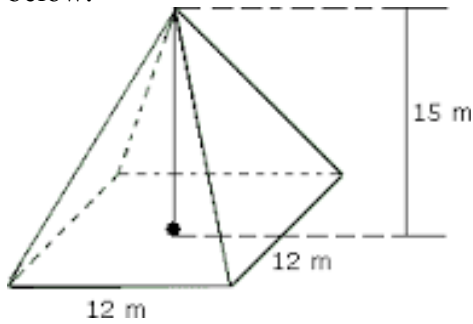
6. If the volume of this triangular prism is 360 ft^3 and the area of the base is 36 ft^2 , what is the height of the prism?



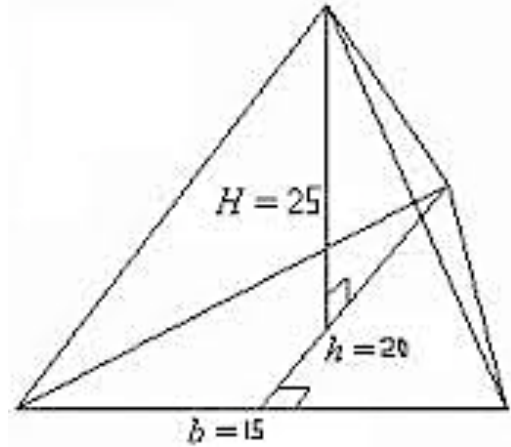
7. Find the volume of the rectangular pyramid below.



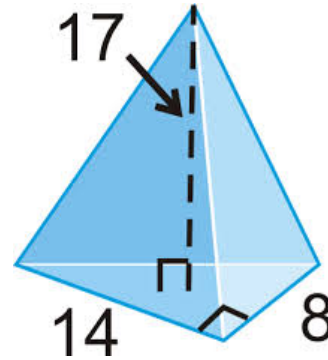
8. Find the volume of the square pyramid below.



9. Find the volume of the triangular pyramid below. The measurements are in cm.

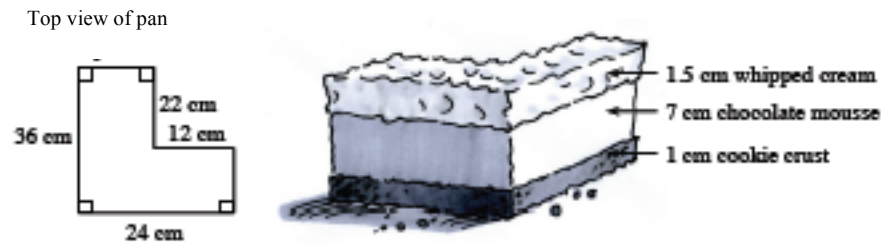


10. Find the volume of the triangular pyramid below. The measurements are in inches.



11. For Mrs. Burton's birthday, the math department wanted to make a cake using her favorite ingredients: cookies and chocolate mousse. We will use a 9.5 cm deep pan that is L-shaped.

The cake will be made up of three different layers, a 1 cm thick cookie crust, a 7 cm thick chocolate mousse layer, and then a 1.5 cm thick layer of whipped cream. Here's what it will look like when finished.



- What is the area of the pan?
- One cookie will crush into about 5 cubic centimeters of cookie crumbs. How many cookies should the math department buy?
- How many cubic centimeters of mousse will we need?
- In an effort to be super helpful, Mr. Sackett made 1200 cubic centimeters of whipped cream to spread on the top, but Mrs. McBride says that he has made too much. Did Mr. Sackett make too much whipped cream? Why or why not?

Factor the following expressions.

12. $4x + 24$

13. $3y - 18$

14. $-14w + 49$

15. $-6z - 15y$