

Name:

Key

Date:

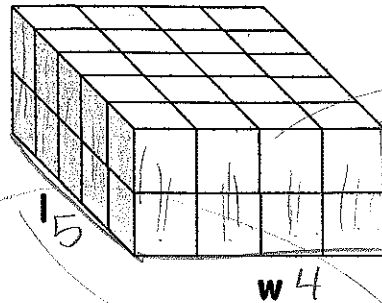
4/1 Mon
Wednesday Night

VOLUME OF RECTANGULAR AND TRIANGULAR PRISMS - HW — you can complete it

1] In the rectangular prism below, what are the length, width, and height of the prism? What is the volume of the prism? Describe how you found the volume?

Length 5
Width 4
Height 2
Volume 40

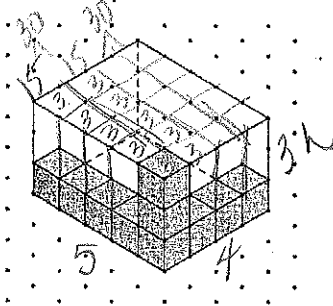
$V = lwh$
 $V = 5(4)(2)$
 $V = 20(2)$
 $V = 40u^3$



40u³

area of Base x h

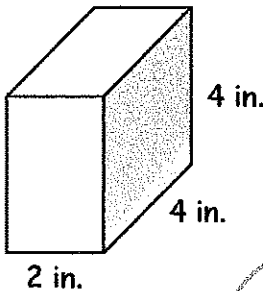
2] How many total cubes are needed to fill the closed box below?



$V = lwh$
 $V = 5(4)(3)$
 $V = 20(3)$
 $V = 60u^3$

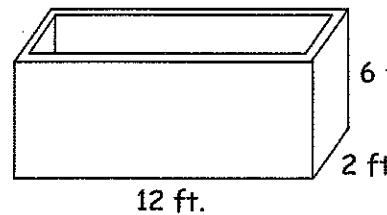
Find the volume of each rectangular prism below.

3]



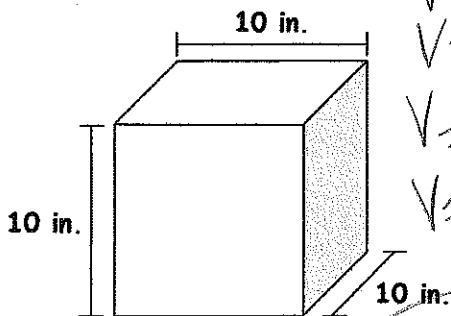
$V = Bh$
 $V = lwh$
 $V = 4(4)(2)$
 $V = 16(2)$
 $V = 32in^3$

4]



$V = Bh$
 $V = lwh$
 $V = 12(2)(6)$
 $V = 144ft^3$

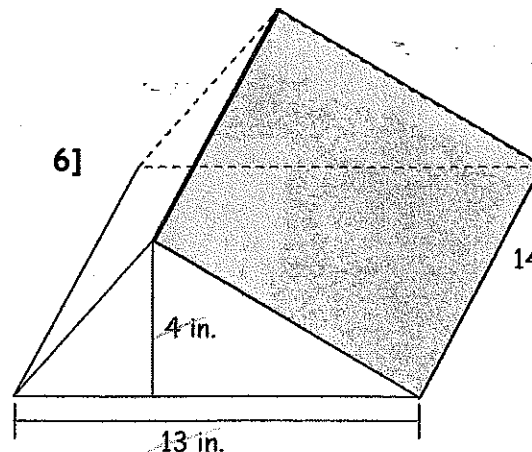
5]



$V = Bh$
 $V = s^2h$
 $V = 10^2(10)$
 $V = 100(10)$

$V = 1000in^3$

6]

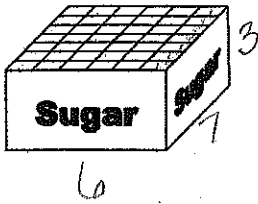


$V = Bh$
 $V = (\frac{bh}{2})h$
 $V = \frac{13(4)}{2}(14)$
 $V = 26(14)$

$B = \text{Area of } \Delta$
 $\frac{bh}{2} = 26$

$V = 364in^3$

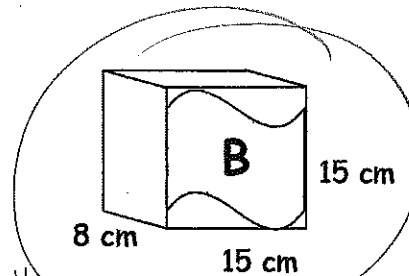
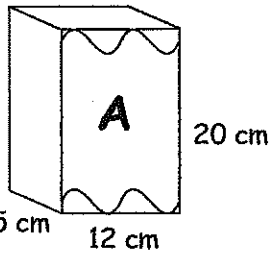
7] When sugar cubes are produced, they are put into tightly packed boxes for purchasing. If the box of sugar cubes shown is 3 cubes high, how many sugar cubes are in the box?



$V = Bh$
 $V = lwh$
 $V = 6(7)(3) = 126 \text{ Cubes}$

8] The two boxes of sugar are the same price. Which one is the better buy? Explain your answer.

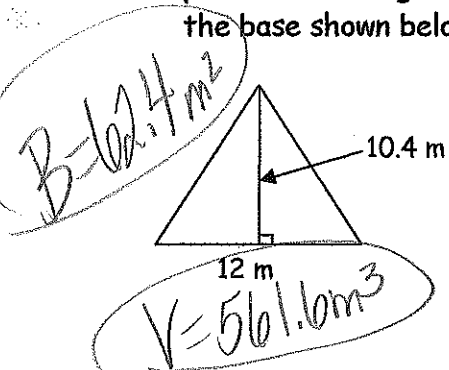
$B = 10 \text{ cm}^2$
 $V = 5(12)(20)$
 $V = 12(100)$
 $V = 1200 \text{ cm}^3$



$V = 8(15)(15)$
 $V = 120(15)$
 $V = 1800 \text{ cm}^3$

Box B is better because you get 600 more sugar.

9] What is the volume of a prism with a height of 9 and the base shown below?

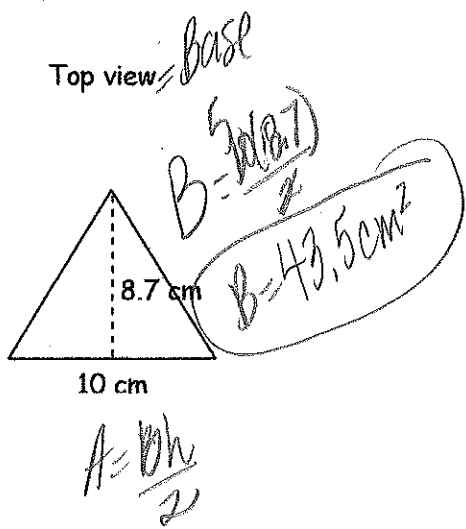
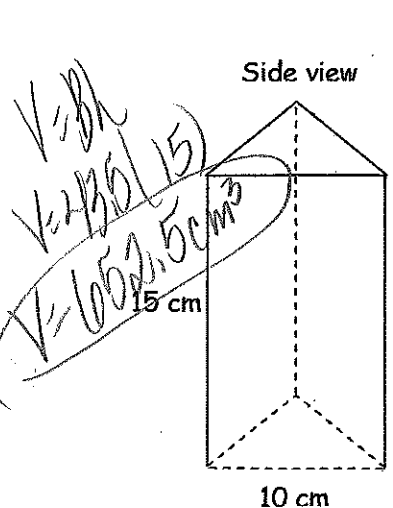


$V = Bh$
 $V = \frac{bh}{2} \times h$
 $V = \frac{12(10.4)}{2} \times 9$
 $V = 62.4(9)$

10] What is the volume of a 1.5 m x 1.5 m x 3 m box?

$B = 1.5^2$
 $B = 2.25$
 $V = Bh$
 $V = 2.25(3)$
 $V = 6.75 \text{ m}^3$

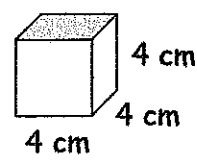
11] Find the volume of the box below, given the side and top views.



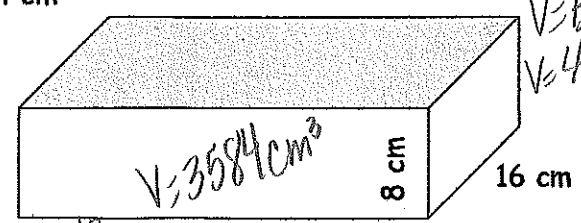
$V = Bh$
 $V = 2(15)(15)$
 $V = 652.5 \text{ cm}^3$

$B = \frac{10(8.7)}{2}$
 $B = 43.5 \text{ cm}^2$
 $A = \frac{bh}{2}$

12] Find the exact number of cubes measuring 4 centimeters on an edge that will fill a box shaped like a rectangular prism that measures 28 cm by 16 cm by 8 cm.



$V = Bh$
 $V = 4^3 = 64 \text{ cm}^3$



$V = Bh$
 $V = 448(8)$
 $V = 3584 \text{ cm}^3$
 $B = 448$

56 cubes