Inspiring Greatness

ISD

INDEPENDENCE SCHOOL DISTRICT

Math Virtual Learning

Geometry/Honors Geometry

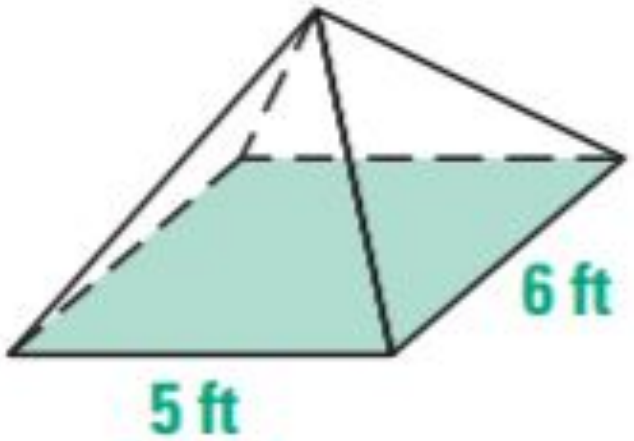
Wednesday, April 29, 2020

Geometry/Honors Geometry
Lesson: April 29th, 2020

Objective/Learning Target:
Students will calculate the volume of a pyramid.

Warm-Up: Find the area of the base

9.



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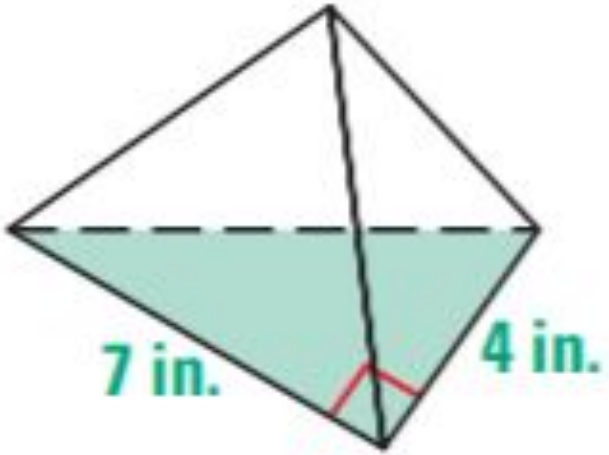


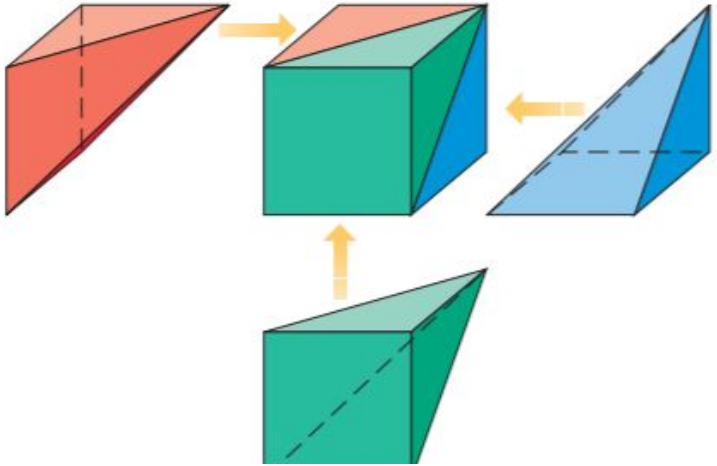
Warm-Up Answers

a) 30ft squared

b) 28 in squared

In the puzzle below, you can see that the square prism can be made using three congruent pyramids. The volume of each pyramid is one-third the volume of the prism.

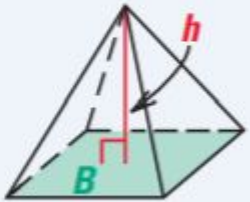
Volume Puzzle



VOLUME OF A PYRAMID

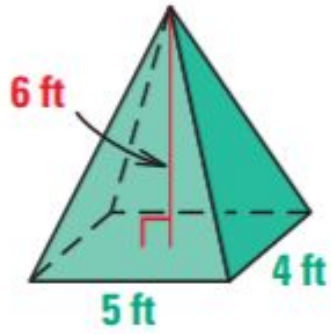
Words Volume $= \frac{1}{3}$(area of base)(height)

Symbols $V = \frac{1}{3}Bh$

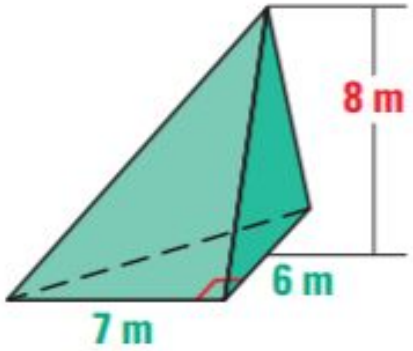


Find the volume of the pyramid.

a.



b.



Solution

a. $V = \frac{1}{3}Bh$ — Write the formula for volume.

$= \frac{1}{3}(5 \cdot 4)(6)$ — Substitute.

$= 40$ — Simplify.

ANSWER ▶ The volume is 40 cubic feet.

b. $V = \frac{1}{3}Bh$

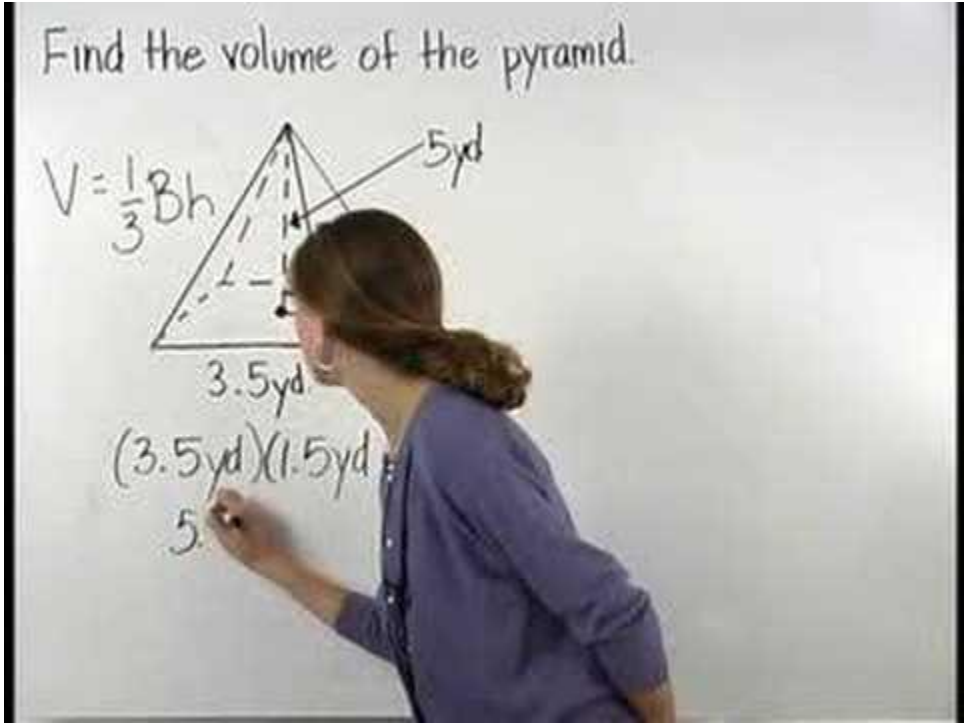
$= \frac{1}{3}\left(\frac{1}{2} \cdot 7 \cdot 6\right)(8)$

$= 56$

ANSWER ▶ The volume is 56 cubic meters.

Information

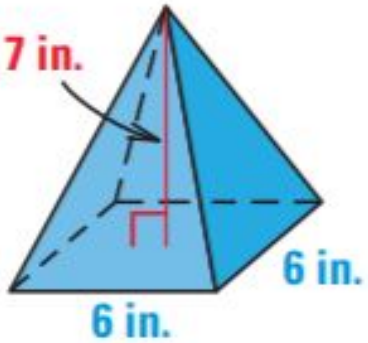
Please watch the following examples:First Video: Examples of finding the Volume of pyramid.



Practice

Find the volume of the pyramid.

1.



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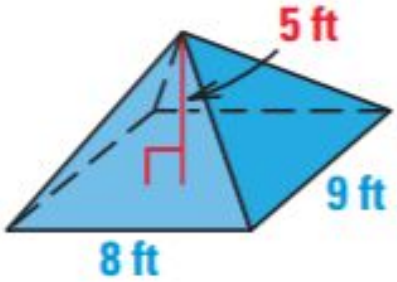
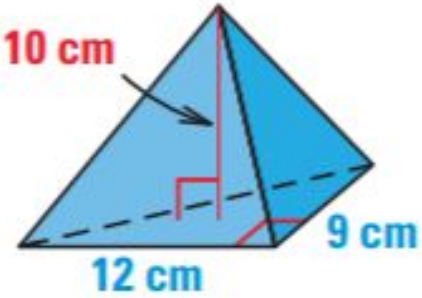


3.



Answers

1) 84 in cubed
2) 120 ft cubed
3) 360 cm cubed

Additional Practice

Click on the link and practice 10 problems. Look at the explanation if you make a mistake: IXL Volume of Pyramid