

Chapter 2 – Cumulative Assessment – Practice Test & Study Guide

Insert grouping symbols to make the number sentence true.

1.) $(125 \div 25) + 7 = 12$

2.) $(2 + 7) * (6 \div 2) = 27$

3.) $9 = 90 \div (19 - 9)$

4.) $156 = (21 + 5) * 6$

Write each expression in the correct column.

5.) a.) $3 * (13 + 6)$

$13 + 6 - 5$

$(13 + 6) \div 2$

$4 + 13 + 6$

$(13 + 6) * 7$

$(13 + 6) - 7$

$> (13 + 6)$	$< (13 + 6)$
$3 * (13 + 6)$	$13 + 6 - 5$
$4 + 13 + 6$	$(13 + 6) \div 2$
$(13 + 6) * 7$	$(13 + 6) - 7$

b.) Did you need to evaluate the expression to solve problem a? Why or why not?

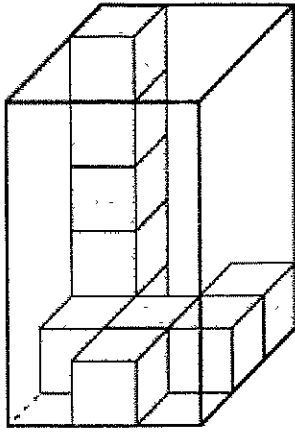
No, we do not need to evaluate the expressions.
We can look at whether the added on part
of the equation will make it larger or
smaller.

6.) Why is a unit cube a good unit for measuring volume?

A cube is a good unit for measuring volume
because they fit together nicely and there
are no gaps so we get an accurate number

7.) a.) Find the volume of the prism.

Volume = 45 cubic units



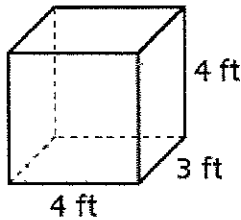
$$5 \times 3 \times 3$$

b.) Explain how you found the volume of the prism.

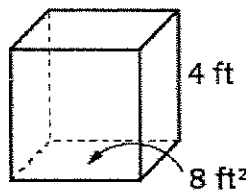
I counted the cubes on the length, width, and height. Then I used the volume formula $V = l \times w \times h$ to find the volume

8.) Mario is buying boxes from a moving company. He wants to buy the box that will fit the most of his belongings. He can choose between the following three options:

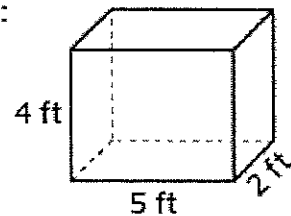
Box 1:



Box 2:



Box 3:



a.) What is the volume of each box? Write a number sentence that shows how you found the volume. **Remember: $V = l \times w \times h$ and $V = B \times h$**

Volume of box 1: 48 ft^3 Volume of box 2: 32 ft^3 Volume of box 3: 40 ft^3

Number sentence:

$$4 \times 3 \times 4 = 48$$

Number sentence:

$$8 \times 4 = 32$$

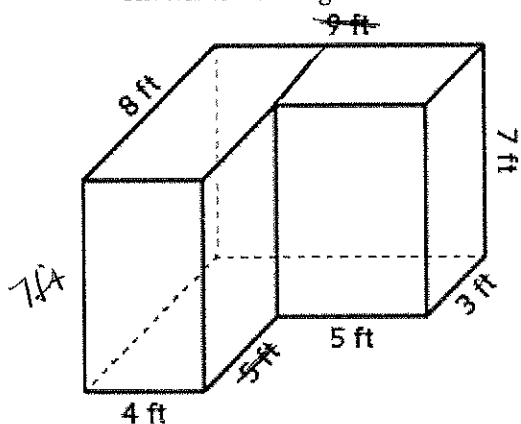
Number sentence:

$$5 \times 2 \times 4 = 40$$

b.) Which box should Mario buy? Explain your answer.

Mario should buy box 1 because it's volume
is 48ft^3 , which is larger than box 2 and
box 3

9.) Angie's family is renting a storage unit. The storage facility gave Angie's family this sketch of a storage unit.



a.) What is the volume of the storage unit? 329ft^3

$$8 \times 7 \times 4 = 224$$

$$5 \times 3 \times 7 = 105$$

$$\begin{array}{r} 224 \\ + 105 \\ \hline 329 \end{array}$$

b.) Angie's family estimated that they need a unit with a volume of 15 cubic yards. How many cubic feet of storage space do they need? (*Hint: There are 3 feet in 1 yard.)

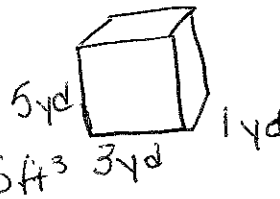
Angie's family needs 405 cubic feet of storage space.

$$5\text{yd} \times 3\text{ft} = 15\text{ft}$$

$$3\text{yd} \times 3\text{ft} = 9\text{ft}$$

$$1\text{yd} \times 3\text{ft} = 3\text{ft}$$

$$15 \times 9 \times 3 = 405\text{ft}^3$$



c.) Is the storage unit large enough for Angie's family? Explain why or why not.

No, the storage unit is not large enough. A unit
that is 15yd^3 would need 405ft^3 of space.
The unit is only 329ft^3 so it is not enough.