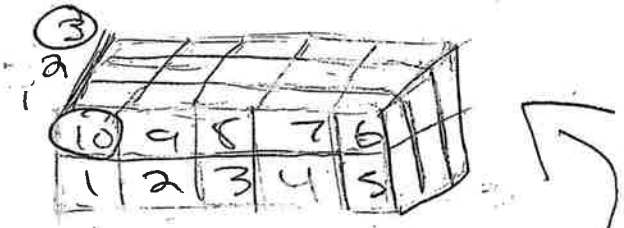
CDC 6.G.2 Mrs. Joshi 1/24

Jimi Esee

Question: Michael says to find the volume of a rectangular prism you just count the cubes. Sam says you use the formula lwh to find the volume. Who is correct?

Claim: When you are trying to find volume you can use both ways - counting the ubes and using the volume formula. Since the volume formula is an easier way to count the cubes.

Data:

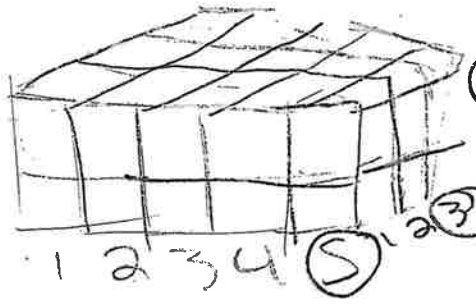


Using the Counting method

10 blocks • 3 layers (1 layer = 10 units)

30 units^3 (3 layers = 30 units)

Using the Formula Method



② $V = \ell w h$

$\ell = 5 \quad w = 3$

$h = 2$

$V = \ell w h$

$V = 5 \cdot 3 \cdot 2$

$15 \cdot 2 = 30 \text{ units}^3$

Commentary To prove they are both right and you could use both methods, I first drew out a figure and I used both methods with the figure. For the first method (the counting method), I first count the side facing me. I counted ten blocks or units and now I have to multiply it by the amount of layers. There was 3 layers so I do $10 \cdot 3 = 30$. So the answer is 30 units. Now let's try the formula. $V = \ell w h$ (Volume = length • width • height) The length is 5. The width is 3. The height is 2.

So now that we know the measurements, its time to multiply. 5 (length) • 3 (width) • 2 (hei
5 • 3 = 15 15 • 2 = 30. So, the answe
is 30 units^3. This information
helps prove the claim by showing
that using both methods correctly
will give you the same correct
answer. This also proves Michael
and Sam are both correct.