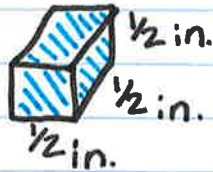
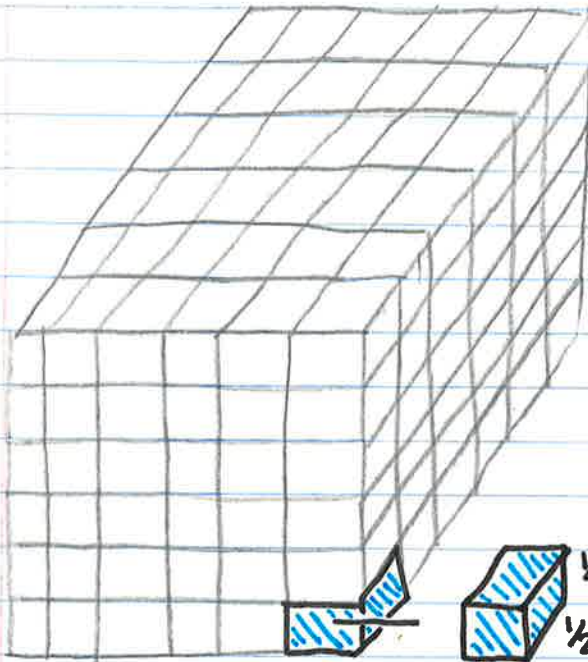


CDC

Fractional
: Edge Length

Mrs. Joshi:
[c] block
Clara Maehlmann

Page 1



Tracy Says $3 \times 3 \times 3$

But

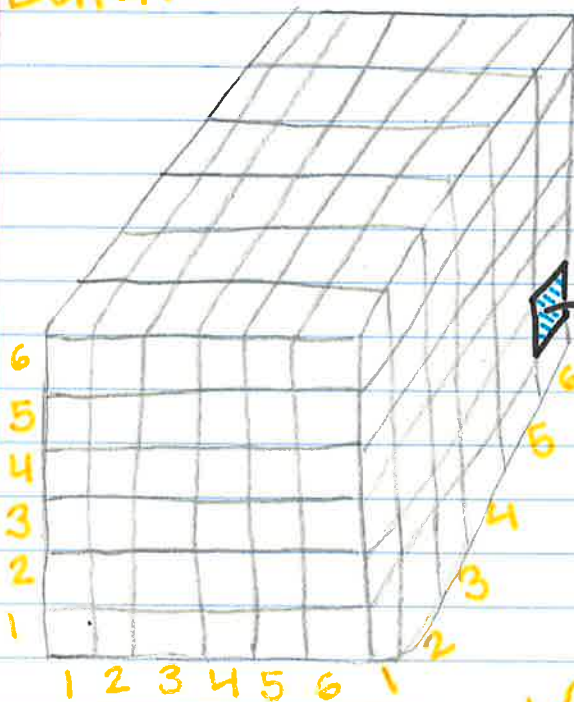
Mark Says $6 \times 6 \times 6 \times \frac{1}{8}$.

Who is correct?

Data:

Claim:

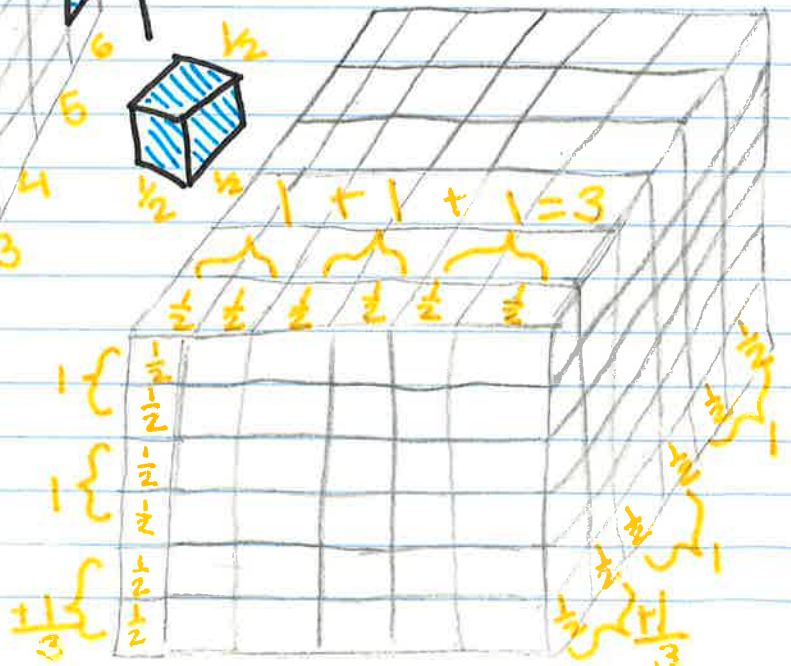
Both Tracy and Mark are correct. It just depends on the method you use.



Mark's work

$$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$$

so, $6 \times 6 \times 6 \times \frac{1}{8} = \text{Volume}$



Mark will get:
 $6 \times 6 \times 6 \times \frac{1}{8} = 27 \text{ in}^3$

Tracy will get:
 $3 \times 3 \times 3 = 27 \text{ in}^3$

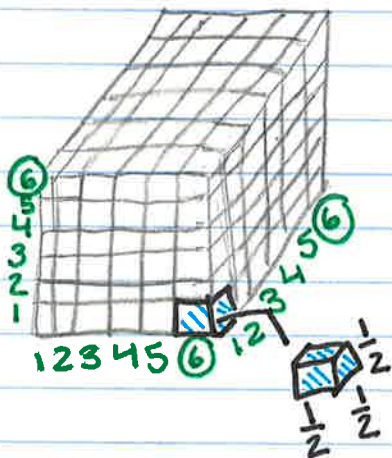
Tracy's work

$3 \times 3 \times 3 = \text{volume}$

comentary:

Tracy and Mark will both get correct answers, it just depends on how they solved it.

Mark got $6 \times 6 \times 6 \times \frac{1}{8}$ by counting the length, width, and height. He started off just like finding volume.



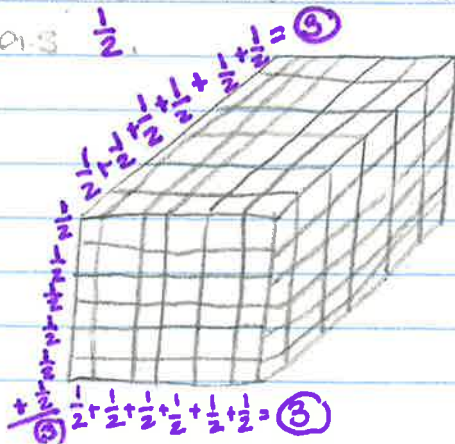
$6 \times 6 \times 6 \times$ volume of one cube = volume of shape.

Then, Mark found the volume of one cube

$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$

Now all Mark has to do is multiply $6 \times 6 \times 6 \times \frac{1}{8}$ to get 27 in³.

Tracy has found her answer by looking at the cubes as $\frac{1}{2}$.



Page 3 Once Tracy adds them up, she will get $3 \times 3 \times 3$.
Since each side measures 3in. After multiplying,
Tracy should get an answer of 27in³.

If you need a refresher

How to Multiply:

Mark's Way	Tracy's Way
$6 \times 6 = 36$ $36 \times 6 = 216$	$3 \times 3 = 9$ $9 \times 3 = \underline{\underline{27}}$
For multiplying a whole number by a fraction, put it over a 1.	If you are just starting out with multiplying, I suggest this way.
$\frac{216}{1} \times \frac{1}{8}$ Try to simplify. You can simplify by 8. $\frac{27}{1} \times \frac{1}{8_1} = \frac{27}{1}$ or <u><u><u>27</u></u></u>	

Now you know how to find Fractional Edge Length using two different methods.