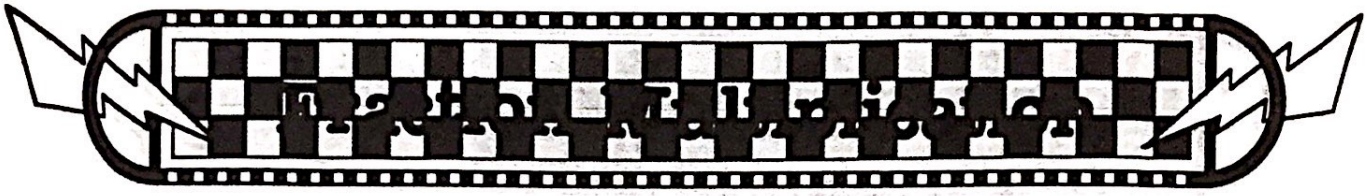


mixed & whole numbers

Reduce to Lowest Terms when necessary.

$\frac{3}{5} \times 5 =$ $\quad 6 \times \frac{7}{8} =$ $\quad \frac{3}{5} \times \frac{4}{15} =$ $\quad \frac{3}{7} \times 28 =$

$\frac{14}{15} \times \frac{5}{7} =$ $\quad \frac{4}{9} \times 63 =$ $\quad 24 \times \frac{11}{12} =$ $\quad \frac{7}{8} \times 96 =$

$1\frac{1}{2} \times 5 =$ $\quad 3\frac{2}{7} \times 4 =$ $\quad 10 \times 5\frac{3}{4} =$ $\quad 3\frac{3}{4} \times \frac{1}{2} =$

$\frac{7}{8} \times 5\frac{11}{12} =$ $\quad 15 \times \frac{5}{6} =$ $\quad 1\frac{1}{3} \times 1\frac{1}{3} =$ $\quad 2\frac{3}{4} \times \frac{5}{6} =$

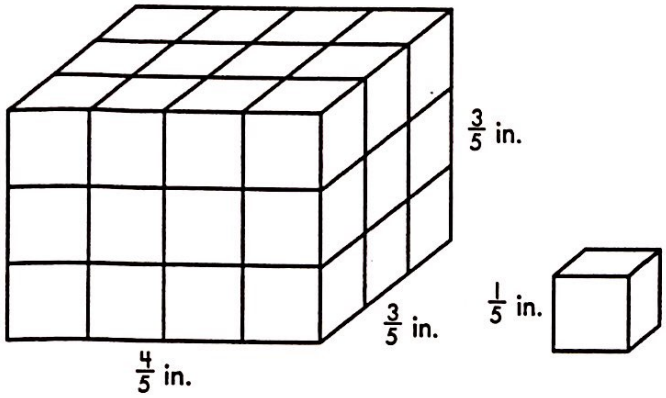
$3\frac{1}{5} \times 2\frac{2}{3} =$ $\quad \frac{5}{8} \times 12 =$ $\quad 3\frac{1}{2} \times \frac{4}{9} =$ $\quad 1\frac{1}{2} \times 2\frac{3}{8} =$

$6\frac{3}{8} \times 2\frac{2}{5} =$ $\quad 3\frac{3}{5} \times 2\frac{5}{6} =$ $\quad 4\frac{2}{3} \times 4\frac{3}{8} =$ $\quad 2\frac{3}{10} \times 1\frac{1}{2} =$

NAME _____

Lesson 6.4 Volume of Rectangular Solids

The volume of a rectangular solid with fractional edge lengths can also be measured by packing the solid with cubes that share a common denominator with the edge lengths. In this rectangular solid, each side length has a denominator of 5, so the solid can be packed with $\frac{1}{5}$ inch cubes to determine its volume.



First, calculate the volume of the cube itself.

$\frac{1}{5} \times \frac{1}{5} \times \frac{1}{5} = \frac{1}{125}$ cubic inches

Next, add up the cubes in the solid. You can see from the top layer that there are 12 cubes per layer, and $12 \times 3 = 36$.

Last, multiply the number of cubes times the volume of one cube.

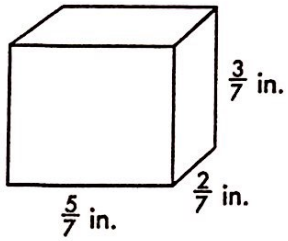
$36 \times \frac{1}{125} = \frac{36}{125}$ cubic inches

This is the same answer you get when you use the formula $l \times w \times h$. $\frac{4}{5} \times \frac{3}{5} \times \frac{3}{5} = \frac{36}{125}$

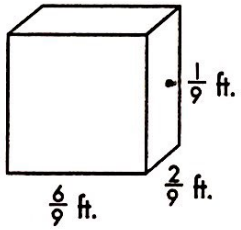
Find the volume of each rectangular solid.

a **b**

1.

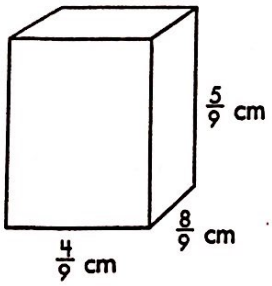


$V =$ _____ cu. in.

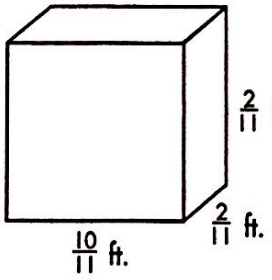


$V =$ _____ cu. ft.

2.



$V =$ _____ cu. cm



$V =$ _____ cu. ft.