Unit 3, Lesson 15

An Assortment of Fractions

Let's find the heights of some stacked objects.

Warm-up

Which Three Go Together: Halves, Fourths, Sixths, and Eighths

Which 3 go together?

A

$1\frac{1}{2}$

B

$\frac{4}{4} + \frac{2}{4}$

C

$\frac{12}{8}$

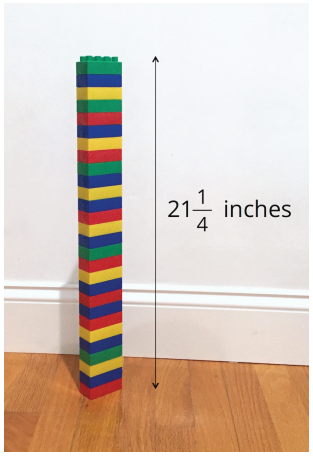
D

$\frac{4}{6}$

Activity 1

All the Way to the Top

Priya, Kiran, and Lin use large playing bricks to make towers. Here are the heights of their towers.



- Priya: $21\frac{1}{4}$ inches
- Kiran: $32\frac{3}{8}$ inches
- Lin : $55\frac{1}{2}$ inches

Show your reasoning for each question.

1. How much taller is Lin's tower compared to:

   a. Priya's tower?

   b. Kiran's tower?

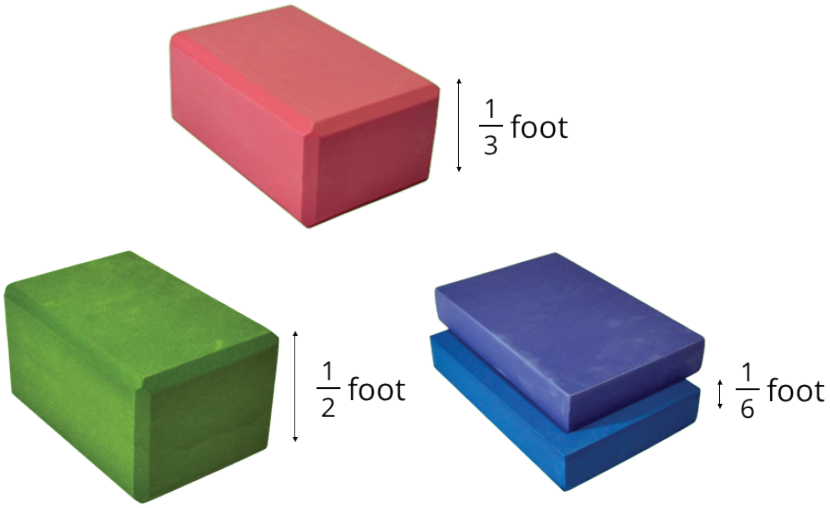
2. They are playing in a room that is 109 inches tall. Priya says that if they combine their towers to make a super tall tower, it would be too tall for the room. She says they must remove 1 brick.

   Do you agree with Priya? Explain your reasoning.

Activity 2

Stacks of Blocks

Andre is building a tower out of foam blocks. The blocks come in three different thicknesses: $\frac{1}{2}$ foot, $\frac{1}{3}$ foot, and $\frac{1}{6}$ foot.



1. Andre stacks 1 block of each size. Is the stack more than 1 foot tall? Explain or show how you know.

2. Can Andre use only the $\frac{1}{6}$ -foot and $\frac{1}{3}$-foot blocks to make a stack that is $1\frac{1}{2}$ feet tall? If you think so, show one or more ways. If not, explain why not.

3. Can Andre use only the $\frac{1}{6}$-foot and $\frac{1}{2}$-foot blocks to make a stack that is $1\frac{1}{3}$ feet tall? If so, show one or more ways. If not, explain why not.