

# Lesson 15: An Assortment of Fractions

- Let's find the heights of some stacked objects.

## Warm-up: Which One Doesn't Belong: Halves, Fourths, Sixths, and Eighths

Which one doesn't belong?

A

$$1\frac{1}{2}$$

B

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

C

$$\frac{12}{8}$$

D

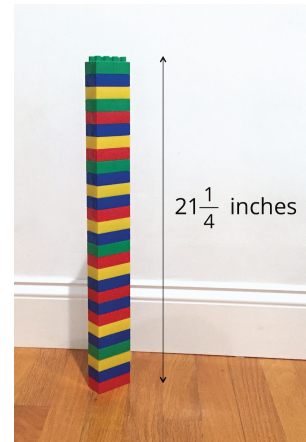
$$\frac{4}{6}$$

## 15.1: All the Way to the Top

Priya, Kiran, and Lin are using large playing bricks to make towers. Here are the heights of their towers so far:

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

For each question, show your reasoning.



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 and they'll have to remove one brick.

Do you agree with Priya? Explain your reasoning.

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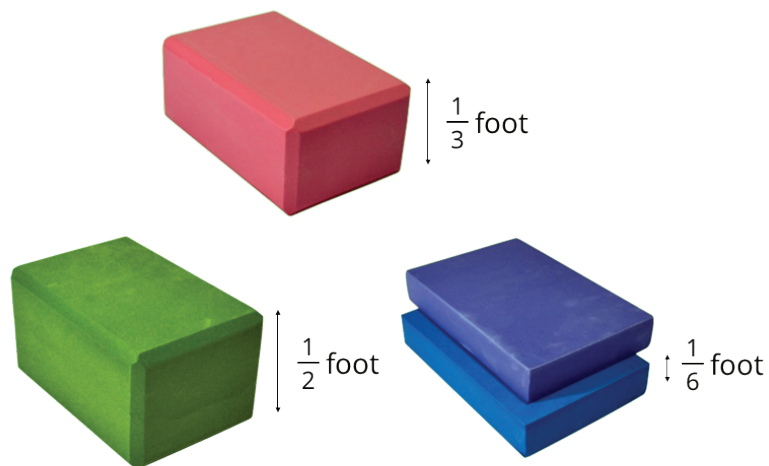
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## 15.2: Stacks of Blocks

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 one block of each size. Will that stack be 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.