Teaching Aid 1.3 Examples of Proportional Reasoning

In *Comparing Quantities*, we worked with unit rates to find shares of a Smoothie Bars. **Example from Problem 3.1:**

When comparing how to share Smoothie Bars, Crystal recorded how many segments she and her sister would get for different sizes of Bars. Crystal thought she could use what she knew about equivalence to make a table showing the amounts.
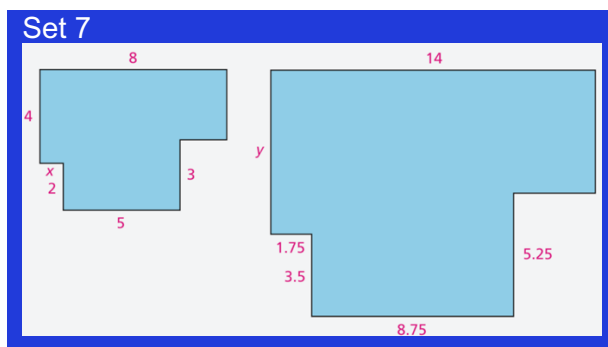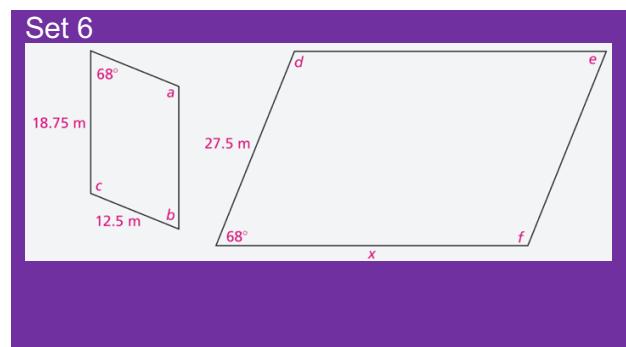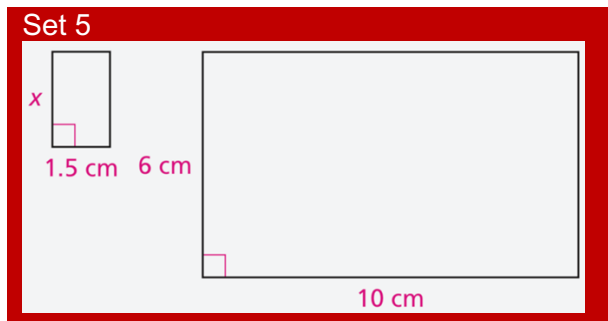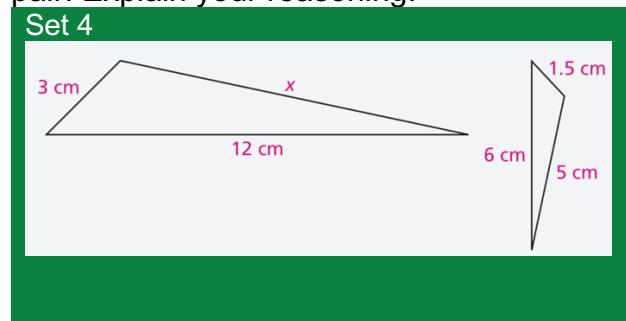
Comparing Segments

Segments for Alexa	6	3	1	2	$\frac{1}{2}$	10
Segments for Crystal	12	6	2	4	1	20

The table shows that for every one segment given to Alexa, Crystal gets two segments. This **is Alexa's unit rate**.
The table also shows that for every ½ segment Alexa is given, Crystal gets one segment. **This is Crystal's unit rate.**

In *Stretching and Shrinking,* we worked with ratios to find missing lengths in similar figures. **Example from Problem 4.1**

The pairs of figures in each set are similar. Find the missing side lengths x or y in each pair. Explain your reasoning.

Set 4

Set 5

Set 6

Set 7

What proportions can we use to restate the relationships above?