Rich Learning Tasks

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Planting Trees

Kyla can plant about 300 trees in an hour.

Mia can plant a single tree in about 13 seconds.

If they work together, how long would it take them to plant 100 trees?

Original Prices

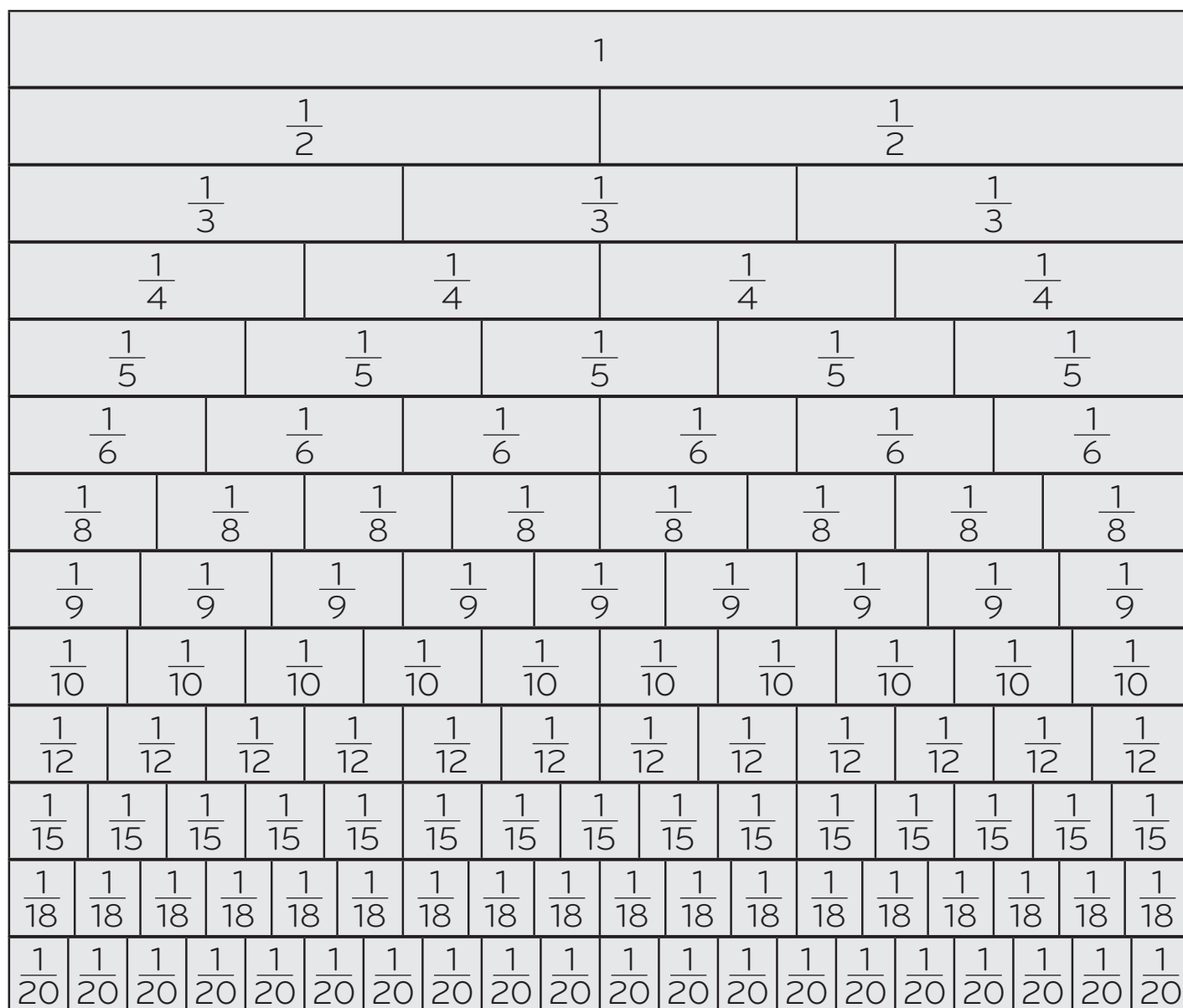30% of Number A is the same as 40% of Number B.
What could A and B be?
Think of lots of answers if you can.

Fitting In

Look at the fraction tower.

What fraction fits into another fraction about $2\frac{1}{2}$ times?

Look for lots of possibilities.

1																			
$\frac{1}{2}$										$\frac{1}{2}$									
$\frac{1}{3}$						$\frac{1}{3}$						$\frac{1}{3}$							
$\frac{1}{4}$					$\frac{1}{4}$					$\frac{1}{4}$					$\frac{1}{4}$				
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$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$

Mathletics

Combined Shape

A shape made up of 2 trapezoids and a triangle has an area of 50 cm^2.
Sketch the shape, indicate the dimensions and the area of each piece and
prove that the total area really is 50 cm^2.

Look for different possibilities.
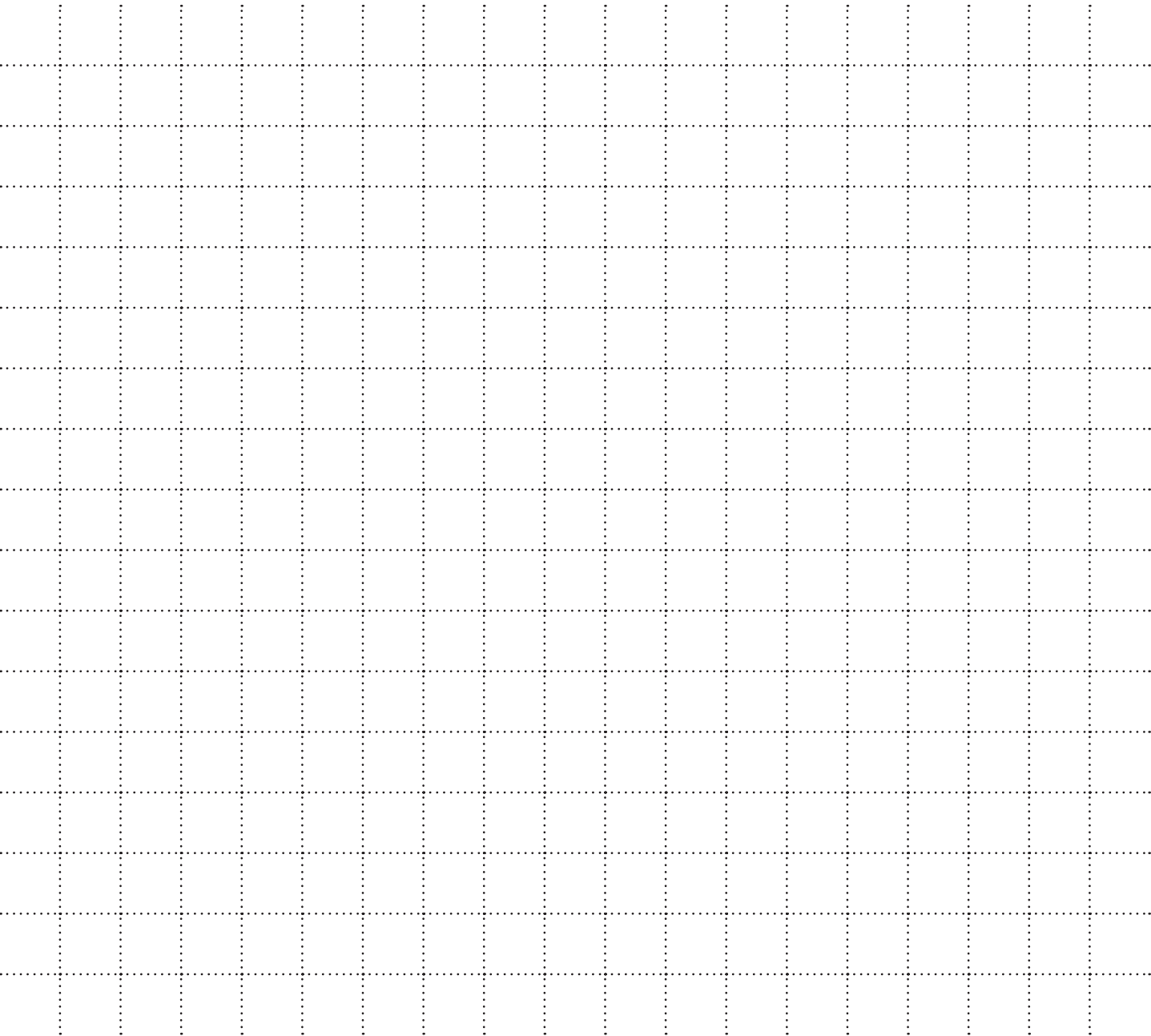
Wrapping a Prism

The surface area of a rectangular prism is close to 75 cm^2.
What could the length, width and height be?

Predicting Area

Make as many shapes as you can on the board where the vertices are positioned on the pegs and so there is exactly one peg inside the shape.

How can you predict the area of the shape by knowing how many pegs are on its outside?
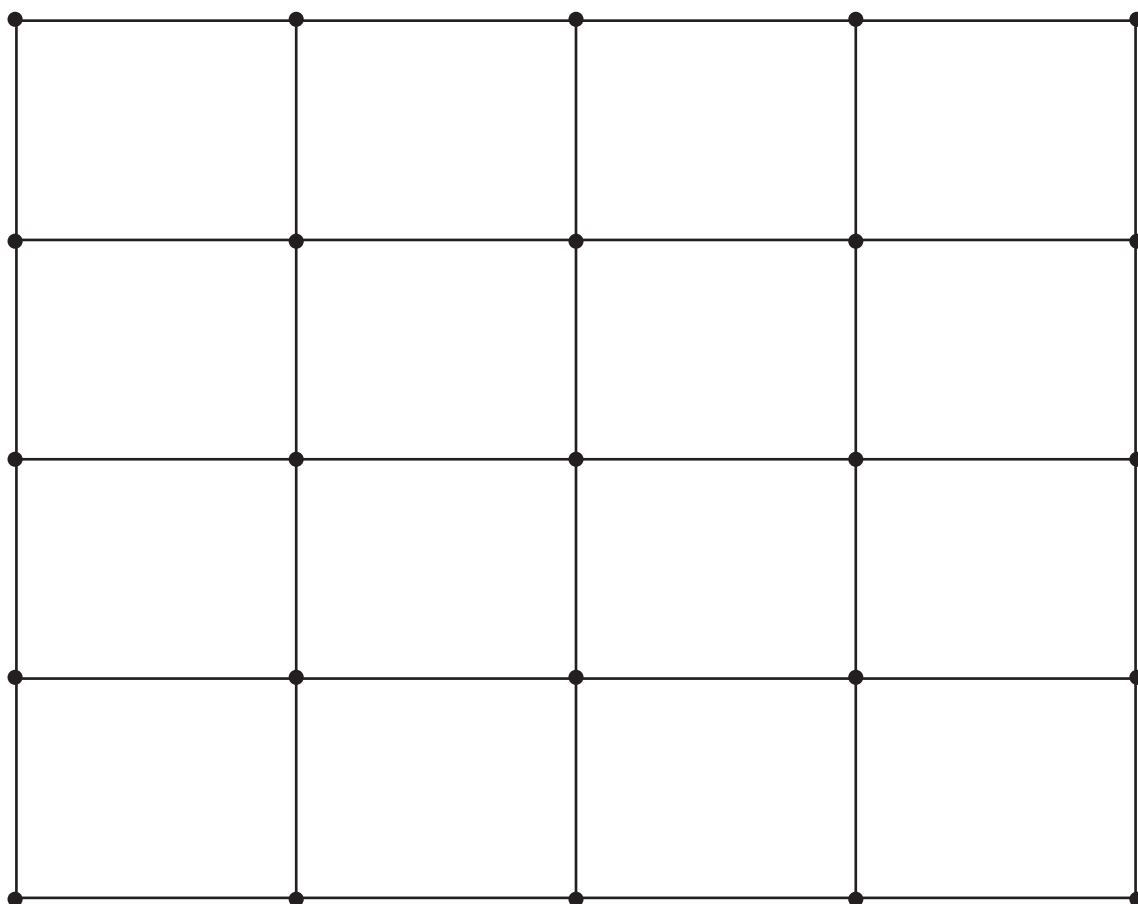
Equal for 10

$2x + 3$ is worth the same as another algebraic expression when $x = 10$ but not for other values of x.

What could the other expression be?

Are there other possibilities?
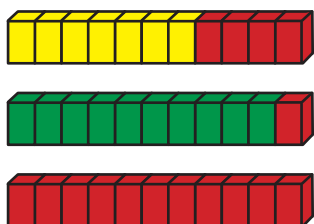
How could you use models to show that this is true?

Building a Mean

One way to figure out the mean (average) of a set of data is to use cubes to represent the data and move the cubes around to make the data equal. The mean is the length of the equal pieces of data.

For example, the mean (average) of 7, 10 and 16 is 11 because:
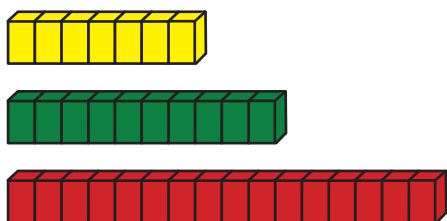
It turns into what you see below when you rearrange the cubes.

Your job is to select 6 numbers so that the mean increases 4 of them but decreases 1 of them.

Use cubes to show you're right.

Try to find lots of possibilities.