Problem of the Week

Measurement has many connections to real-world applications. The following tasks are intended to be open-ended so that discussion can support understanding.

Be mindful that during these prompts, it is important the teacher listens to student conversations and asks questions that illicit student thinking.

Primary	Two strings, measuring over 40 cm each, were used to make a rectangle. The rectangle had a perimeter less than 160 cm. What could be the length and width of the rectangle?
Extension	• Assuming you cut some off the first string, what is the dimensions and perimeter of the newly constructed rectangle? How much of the first string was cut off?

Elementary	Tami and Geoff each created a rectangular poster for the school basketball tournament. Tami's poster used more than 100 cm of border while Geoff's poster used slightly less than 100 cm of border. While the perimeter of the two posters were similar, Geoff's poster had a much greater area than Tami's poster. What are the dimensions, perimeter and area of the two posters?
Extension	• Assume that Talia used a similar length of border as Tami did. While Talia's poster had a perimeter quite different than Tami's poster, the area of each of their posters were similar. What are the dimensions of these two posters?

Intermediate	The surface area of the red rectangular prism was significantly greater than the surface area of the green rectangular prism. When comparing the two rectangular prisms, it was noticed that at least one face of each prism was the same. What could be the dimensions and surface area of each rectangular prism?
Extension	• While adhering to the two rectangular prisms sharing at least one identical face, how can you adjust the dimensions of the two rectangular prisms so that each has a similar volume?