From Prummer, K.E., Amador J.M., and Wallin, A.J. 2016. “Persevering with Prisms: Producing Nets*.*” *Mathematics Teacher* (April): pp 472-479.

**Scenario**: Your older brother is living on an island in the South Pacific. He lives in a hut and is really hungry for your Mom’s homemade chocolate chip cookies. You decide to send him a gift of Mom’s cookies. You have a box in the shape of a rectangular prism that is not big enough for all those cookies, so you decide to make your own box with flat pieces of cardboard that Dad brought home from the shop. The box you have is 6 cm long, 4 cm wide, and 3.5 cm tall. The box you want to make needs to be three times taller, three times wider, and three times longer.

**Part 1: The Original Net**

Use graph paper to make a net of the original box. Each unit on the graph paper should represent 1 cm. Once the net is complete, fold the net into the rectangular prism.

**Part 2: Scaled Net**

Use graph paper to make a net of the scaled box. What are the dimensions of the new prism? Once the net is complete, fold the net into the rectangular prism.

**Part 3: Investigating Volume**

How many of your smaller boxes do you believe will fit into your larger box?

How many 1cm x 1cm x 1cm cubes would fit into your original box? Explain your reasoning.

How many 1cm x 1cm x 1cm cubes would fit into your scaled box? Explain your reasoning.

What is the relationship between the volume of the first box and the volume of the second box?