Create New Packaging with Proportionality: Teaching and Extending Dilations

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Supplies Needed:
Cereal Boxes (1 per group)
Edwards Pie Individual Slices Boxes (1 per group)
Starburst wrappers (1 per group)
Poster board (1 per group)
Scissors (several sets per group)
Rulers (several per group)
Post-It Notes (1 pad per group)

Divide students into small groups.

Introduction:
Tell the students: Three days ago the Mars Factory called me and told me they were making a Jumbo Starburst and needed to know the dimensions of the wrapper is they tripled the length of the sides. They heard I had some incredible students and wondered if my students could help.

The very next day the Edwards pie company called and told me that their individual slices of pie were so popular that they were created a jumbo slice and needed to know the dimensions of the box if they doubled the lengths of the sides of the triangles. They had talked to the marketing people at Mars Factory and they said my students could help.

The very next day the Kelloggs company called me and told me that they were creating a box of cereal for small families and they needed to know the dimension of the box if the lengths of the front were halved. They had just talked to the Edwards Pie people and they said that your students were incredible and would be glad to help.

Project
- Give each group the necessary supplies and ask them to cut out the new shapes from the piece of posterboard. They should label the sides of each shape with the new measurements, and identify the type of package they changed.
- Students should use 1 post-it note per package. They should write the original dimensions of the package on the post-it note, and stick the note onto the new shape, for reference later
- Give students time to work.
- After students are done, reflect on the activity by talking about how they came up with the new dimensions, how they related to the old dimensions, and any difficulties they had with this project

Extension: Changes in dimensions with perimeter and area