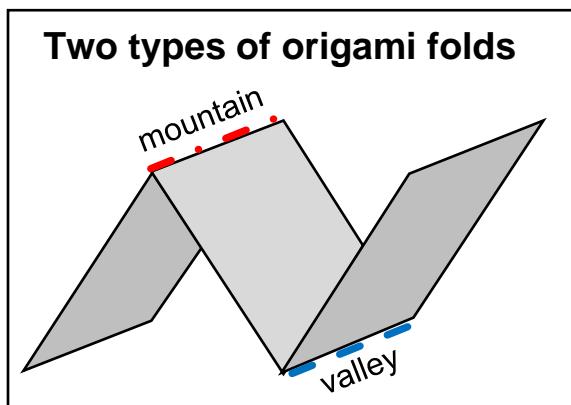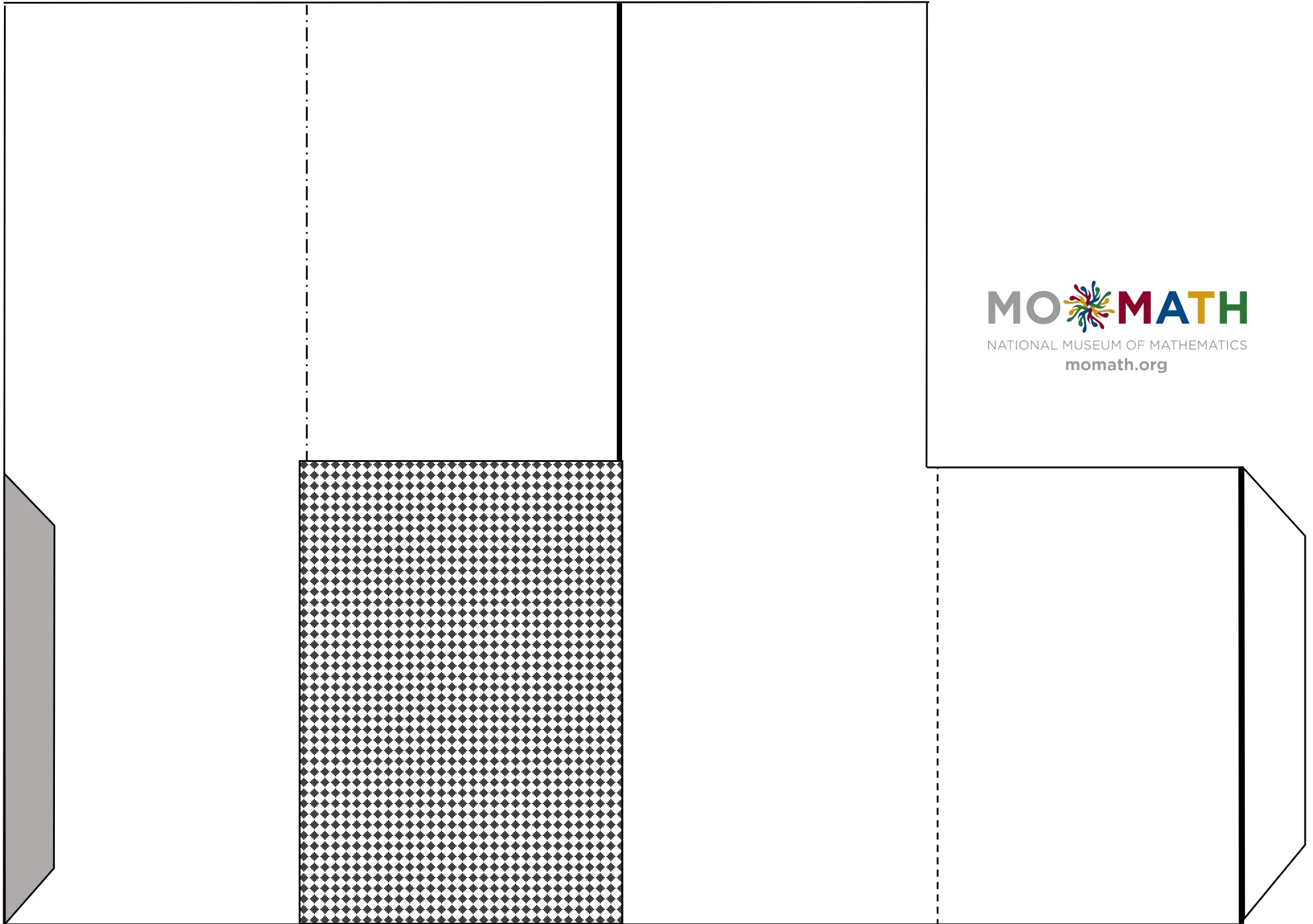# Winter Holidays Greeting Card

These are two-part instructions for making a greeting card based on the tri-tetraflexagon. The first part involves making the tri-tetraflexagon base. The second part shows you how to decorate your card with a pine tree that seems to change colors depending on how you hold it. You can supplement the instructions below with this video.

Part I: The tri-tetraflexagon base

1. Print page 2 of this document on 60 lb or heavier cardstock. Green paper works best, unless you prefer your pine tree to be a different color.
2. Cut out the shape along its boundary and cut out the checkered square in the middle.
3. Fold along mountain and valley folds according to the origami notation below. Cut and folded lines may not always align. This is part of the design of this card.
4. Glue or tape the trapezoids together.
5. The two bold segments will be approximately collinear at this point. Fold back and forth along the bold black line that runs down the middle of your card.
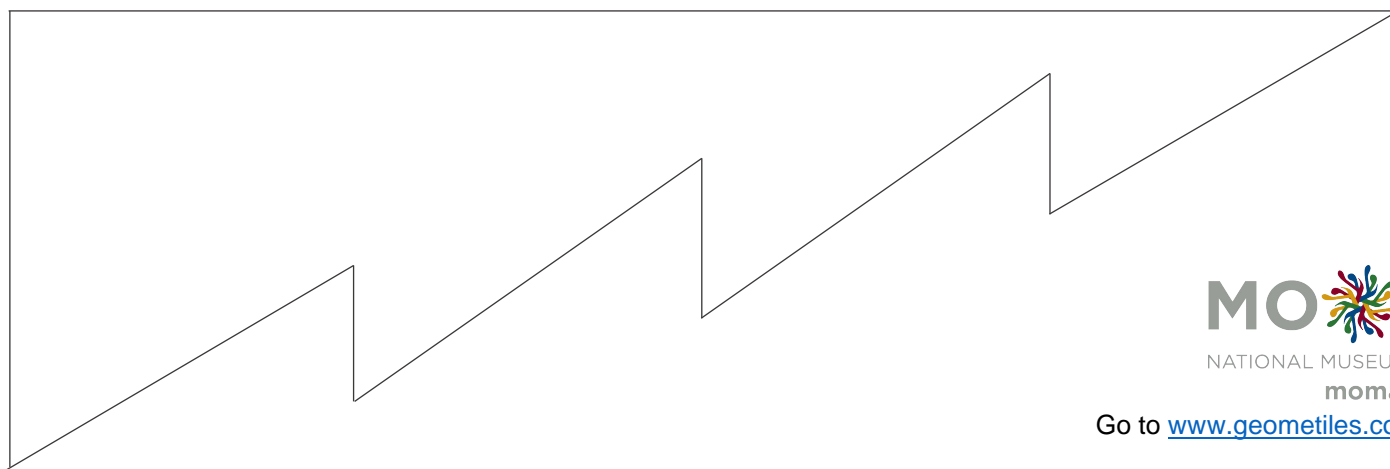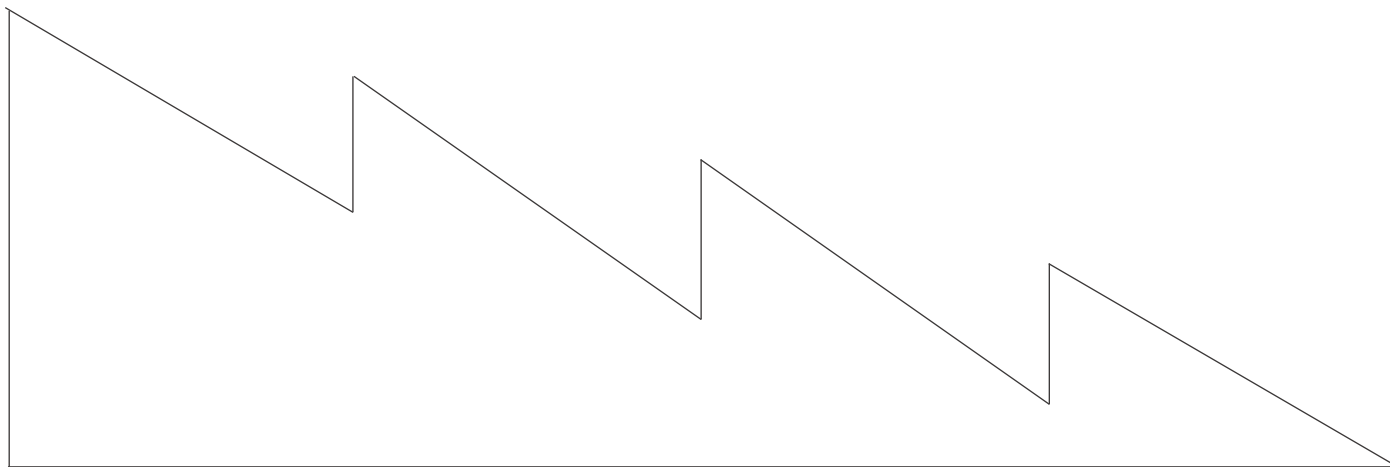

Two types of origami folds

mountain

valley

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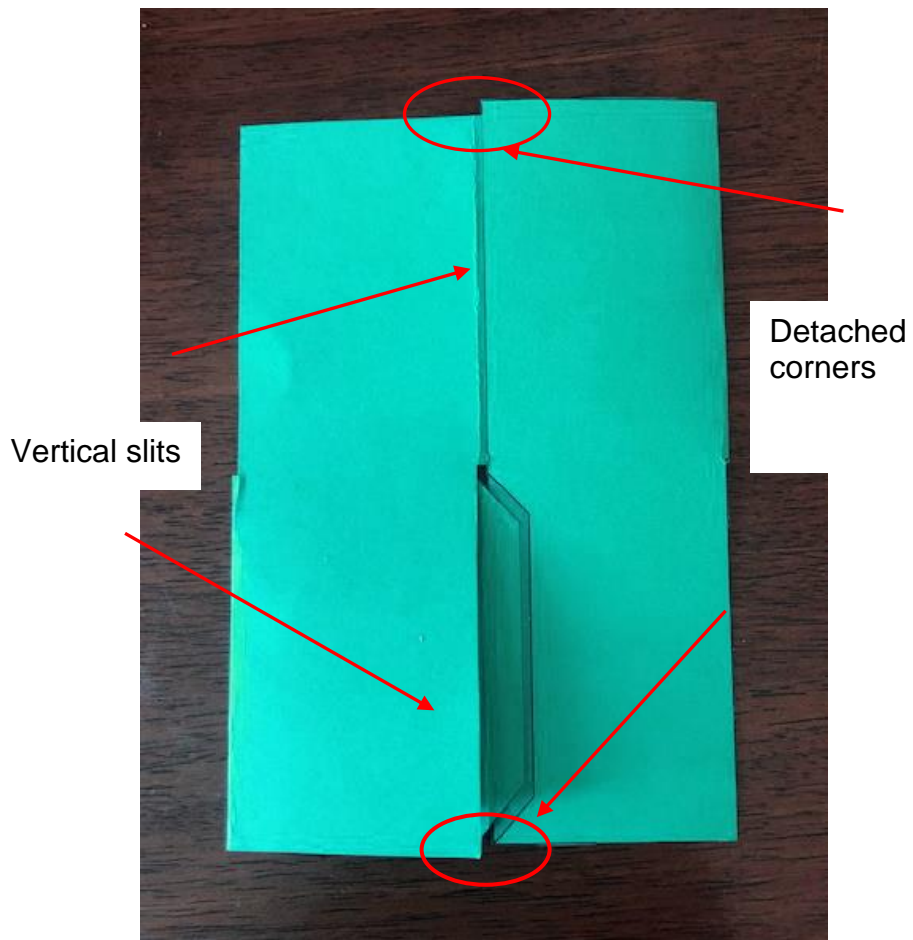Go to www.geometiles.com for more math craft ideas.

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Part II: The pine tree

1. Print this page only on regular white paper.
2. Cut out the two halves of the pine tree.

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3. Position your blank tri-tetraflexagon as shown below (left), so that the slits are vertical and the corners (circled in red) are detached. Glue the pine tree halves onto your tri-tetraflexagon as shown below on the right.

Detached corners

Vertical slits

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Bend your card in half along the middle of the pine tree and open it. Turn it over, and your pine tree will look like this:

4. Your card is a **tri**-tetraflexagon, so it has two more sides to decorate!