



Tangrams – October 7, 2015

A *tangram* is a “Chinese puzzle consisting of a square cut into seven pieces that can be arranged to make various other shapes” (<https://en.wikipedia.org/wiki/Tangram>)

Tangrams are used to enhance computational thinking, spatial skills and mathematical performance. The basic puzzle is to create a square out of the pieces. However, the pieces can be used to make thousands of shapes. There are several attached with the initial template.

Let’s get started!

This activity is worth 6 points.

To Play:

- 1) You will need to print *tangrams* for your class to do the activity, click on the link, for a printable pdf. Print as many as you need.
- 2) Each tangram (the square on the printable pdf) has 7 tans (shapes – 2 large triangles, 1 medium triangle, 2 small triangles, 1 square, and 1 Rhombus). Using scissors, cut the lines in each square to create the 7 tans. Each student will need one tangram for this activity.
- 3) We have provided three copies of Tangram puzzle outlines for novice, intermediate and, experienced levels. Use the level(s) appropriate for your students. Click on the appropriate link for a pdf for each level:
 - Novice Outlines
 - Intermediate Outlines
 - Experienced Outlines
- 4) To solve the puzzle, use the 7 tans to re-create the puzzle outlines. Hint: If your students have never played with tangrams, start simply by asking them to recreate the square.
- 5) For an additional option, try an online version. Here’s one to try in your classroom, *Interactive Tangram*, <http://britton.disted.camosun.bc.ca/tangram.swf>.

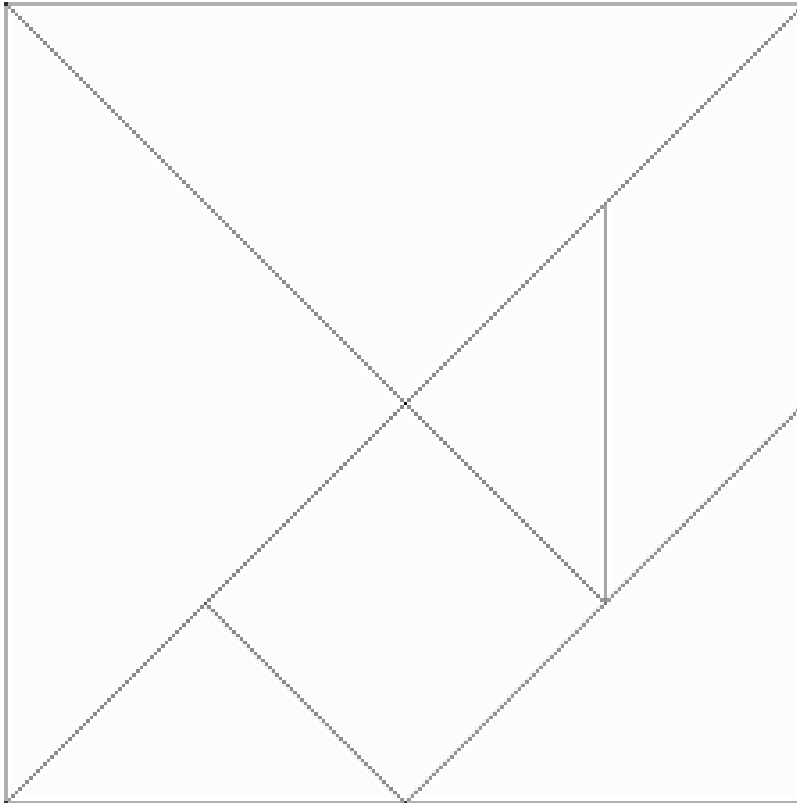
How to earn points:

- 1) If you haven’t registered your class, please go to cs.montana.edu/looney-challenge and click on the “Register for Looney Challenges” link.
- 2) Discuss with your class the difficulty of the activity. What did they learn? How difficult was the activity? Do they understand the concept and how it relates to computational thinking?
- 3) Briefly, in a couple of sentences, describe in your email what happened during the activity? Did your students understand the concept(s)? Email your description to looneychallenges@gmail.com
- 4) If you want to attach an example, photographs of students working, or video of student’s outcomes, please send them as an attachment.
- 5) We will send you a confirmation and provide you your point total for the activity and your total points for Looney Challenges.

All Looney Challenges can be completed at any time during the 2015-2016 school year. All Challenges are due, June 30, 2015.

Questions? Please send an email to looneychallenges@gmail.com or call Sharlyn Izurieta at (406) 994-4794.

Thank you for participating in Looney Challenges!



Tangram Template

Print out onto card and cut very carefully along the lines to separate the seven pieces.

