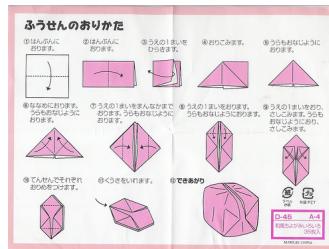


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 Math 2590
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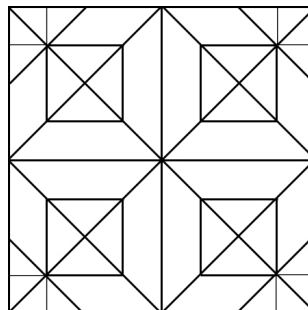
Equations After pod cast

1. i. Construct the 'blow up box' using the link: <<http://www.youtube.com/watch?v=lvqIdQn90WQ>> (Gh0stlee, 2010), or the image provided below



(Retrieved from <http://farm1.static.flickr.com/154/396055144_1f1c713bfa.jpg>

- ii. Dismantle the Blow Up Box, you will need it for the succeeding exercises. It should look like this:



2. 2-Colourability. Fold the blow up box and then dismantle it. Using the crease patterns as your guide, colour the blueprint in 2 colours alternately. How many areas are there? Why do you think the 2-colourability rule works?
3. Circle Packing. i) Draw a circle around an area of intersecting creases that you see. ii.) Number the angles inside the circle. iii) With your protractor, measure the angles within the circle, keeping track of the odd and even numbered angles. (a.) What is the pattern you notice? (b.) Why is this pattern important to any structure in origami?
4. Fold your square paper in half, and in half, and so on. If one fold creates two areas, and two folds create four areas, how many areas will be created for n lines? Keep in mind the symmetry of origami.
