Name: _____ Math 212 POW Four

FORMAT

- Write neatly and clearly on white paper (lined or unlined)
- Attach a POW cover sheet to the front of your work for turn in

Before starting your problem solving process:

- ✓ Refer to your POW directions (linked to your Math 212 home page)
- ✓ Read **all** of the directions given here

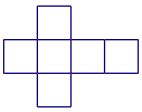
Even Probabilities

a. How can the faces of two cubes be numbered so that when they are rolled, the resulting sum is any whole number from 1 to 12 and each sum has the same probability of occurring? You are not restricted to the numbers 1, 2, 3, 4, 5 and 6.

Use Polya's four steps and explain your problem solving process.

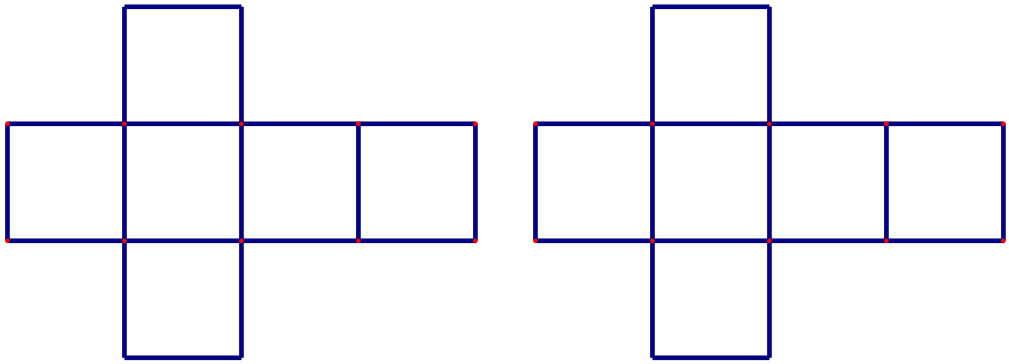
Be sure to give a chart showing each number option and each probability.

You may wish to present your cube labels on a net for a cube as shown here. The next page has four blank nets for your use.



b. There are at least four ways to number a set of two cubes to solve the question in part a). Give a second set of two cubes different than what you have in part a).

Part a) Two Cubes



Part b) Two Different Cubes