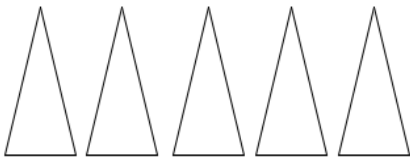# Early Elementary
Winter 2012 meeting 1
Flipping Triangles, Counting triangles and other fun problems

1. Mary was reading an old book. She noticed that several sheets were missing from the book. When she opened the book at this place, the number of the page on the left was 14 and the number of the page on the right was 19. How many sheets of paper fell out of the book in this place? (Hint: Remember that there are 2 pages on each sheet of paper: one on the front and one on the back).
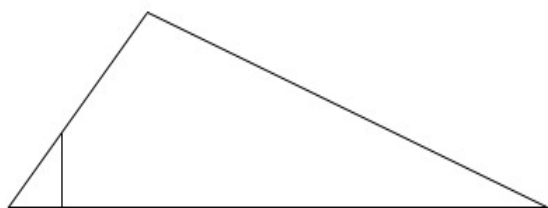
2. Below are 5 triangles facing upward. Your goal is to flip all triangles to face downward, but you can only flip 3 triangles at a time. A flip turns a triangle facing up into a triangle facing down and a triangle facing down into a triangle facing up. Draw all the steps in your solution.
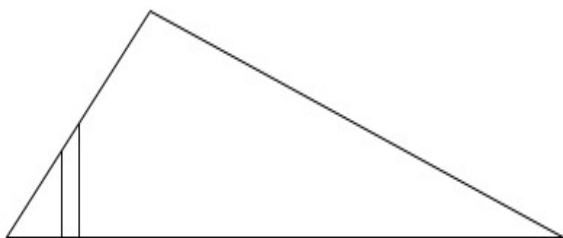
3. What if you have 6 triangles facing upward and you can only flip 4 at a time. Can you still flip all of them downward?
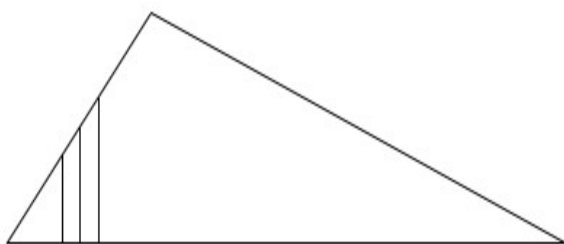
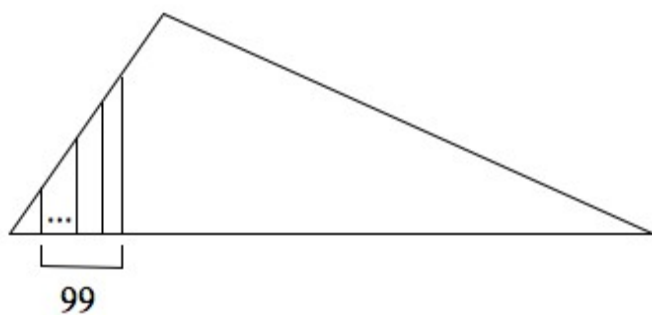4. How many triangles are there on the picture below?

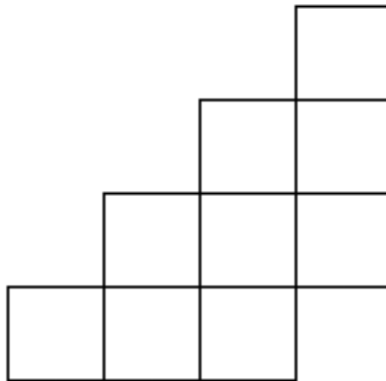5. How may triangles are there on the picture below?

6. How many triangles are there on the picture below?

7. How many triangles are there on the picture below, if there is a total of 99 lines connecting two of the triangle's sides.

99

8. Cut the shape below into 3 equal parts:

Review Problems!

1. If you add Melinda's favorite number to Ada's favorite number you get Lauren's favorite number.

Lauren's favorite number is 3 more then Melinda's favorite number.

Ada's favorite number is 6 less then Lauren's favorite number.

What is Lauren's favorite number?

2. One bacteria was placed in a dish. Every second, each bacteria divides into 2. How many bacteria will there be in the dish after 4 seconds?

3.Right now baby Max is 3 years old and his mother is 32 years old.

 Max has an older sister who is 12.

When Max is exactly half the age of his sister, how old will his mother be?

4. Kate and Jan decided to meet on the train. They agreed to go to the 5th car of the train. Kate counted the 5th car from the front. Jan counted the 5th car from the back. They ended up in the same car. How many cars are there in this train?

5. The jogging path in the park is 100 meters long. There are lamp posts along the path. The first lamp post is at the beginning of the path. The last lamp post is at the end of the path. If the lamp posts are 10 meters apart, how many lamp posts are there in all?

6. A pencil and an eraser together cost the same as 3 pencils. An eraser costs 50 cents. How much does a pencil cost?