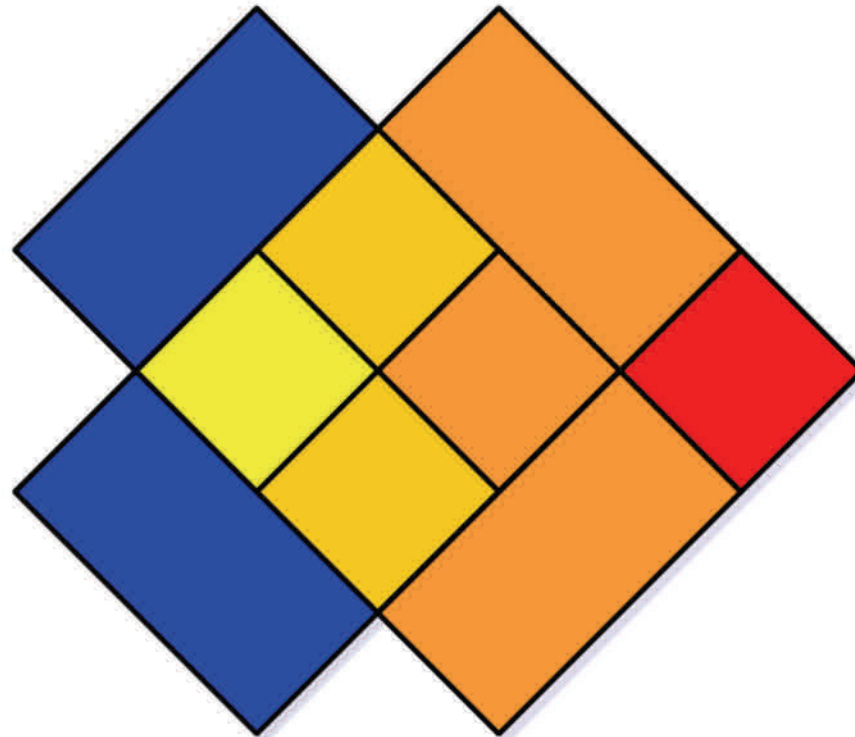# Bell Ringer

October 22, 2012
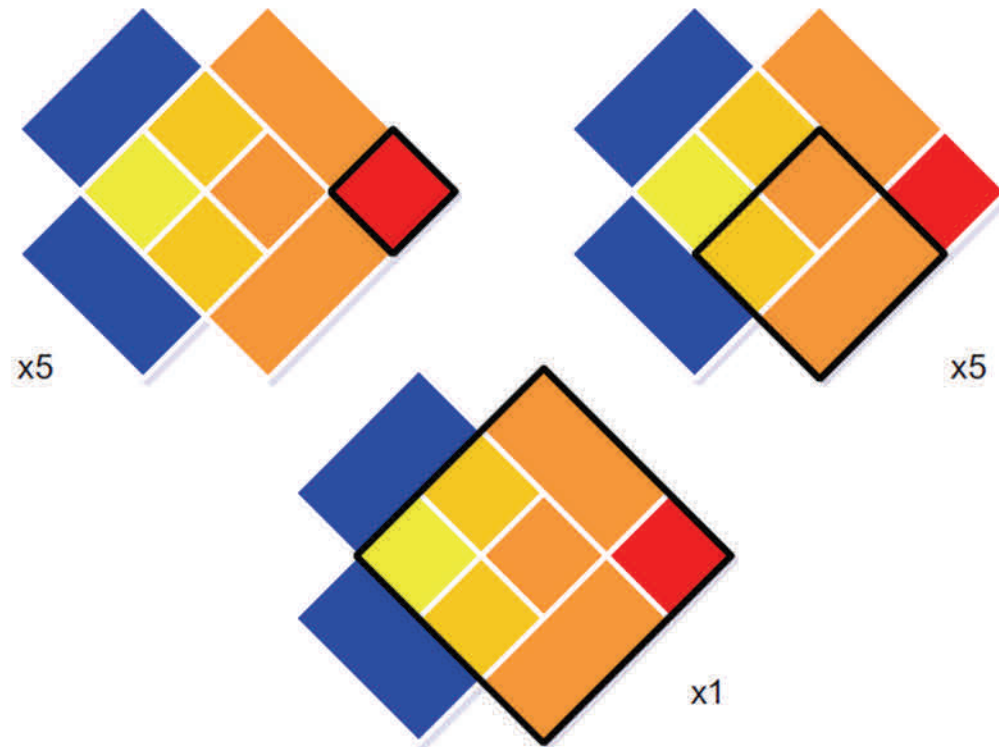
How many different squares can be found in the shape below?

Bell Ringer
October 22, 2012
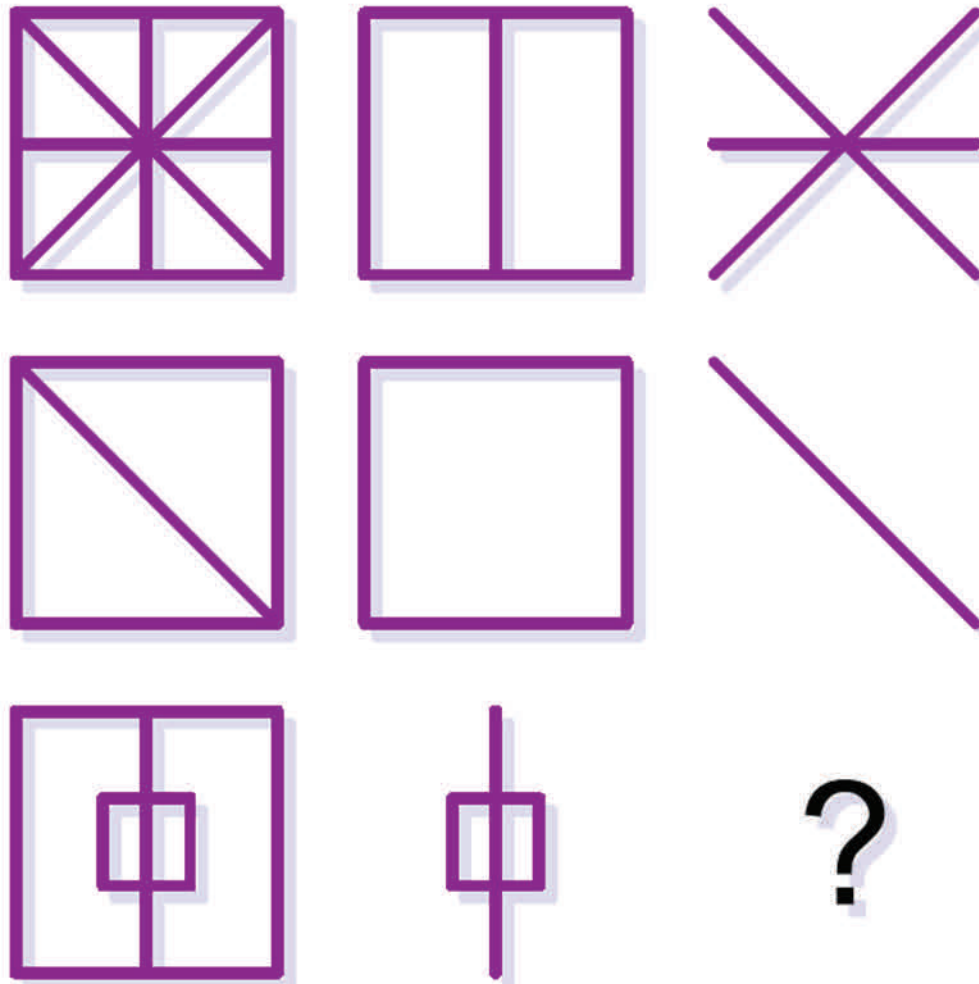
There are 11 different squares
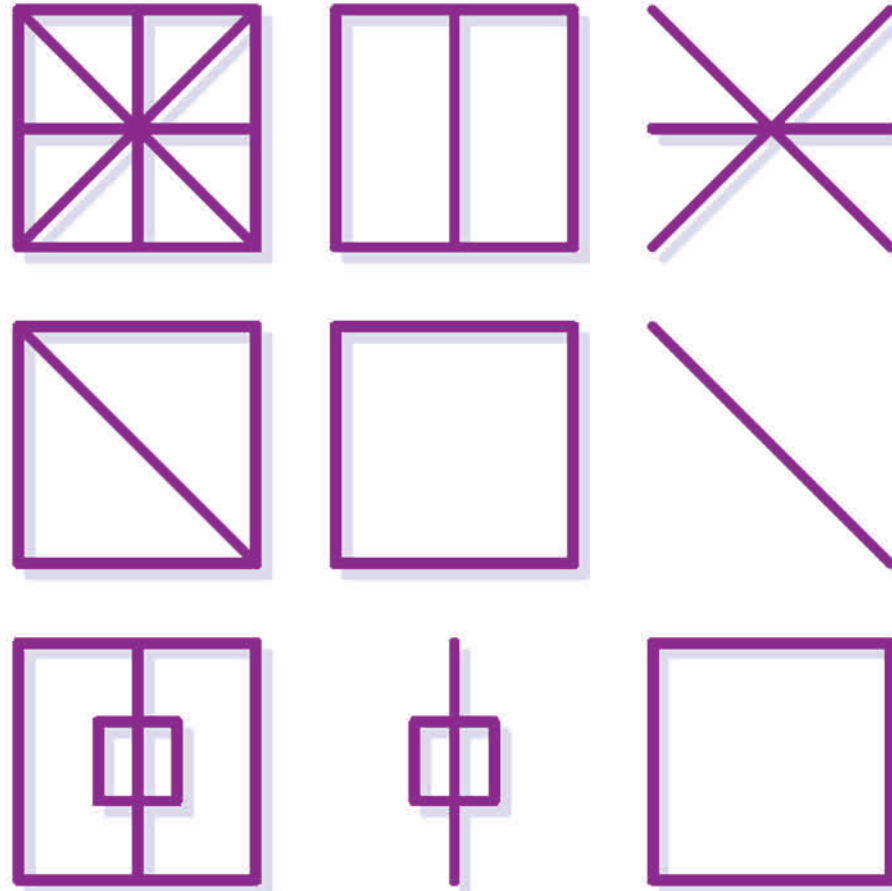
Bell Ringer
October 23, 2012

In each row the third pattern is obtained from the first two by applying a rule. What is the rule, and what pattern goes at the end of the third row instead of the question mark?

Bell Ringer
October 23, 2012

The rule for obtaining the third pattern in each row is to superimpose the first two patterns and eliminate any lines they have in common. Hence the pattern to be placed at the end of the third row is simply a square.

Bell Ringer
October 24, 2012

What month is indicated by the
strange symbols in the illustration?
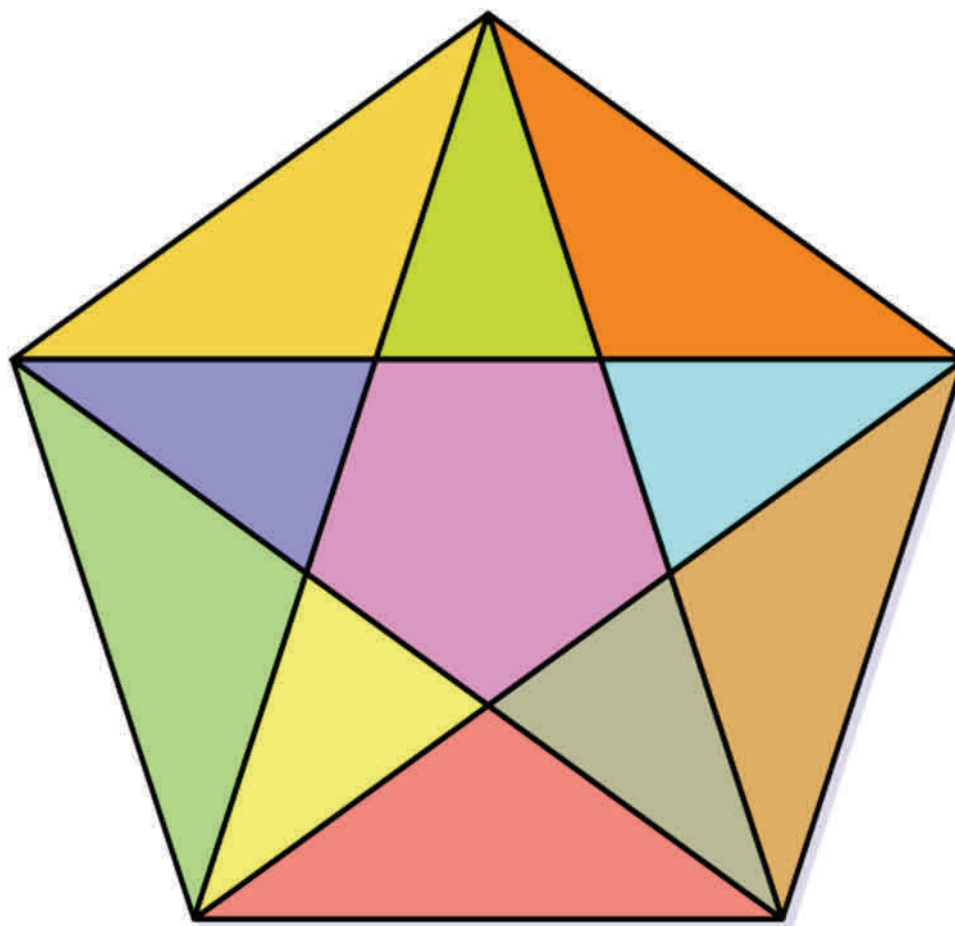
Bell Ringer
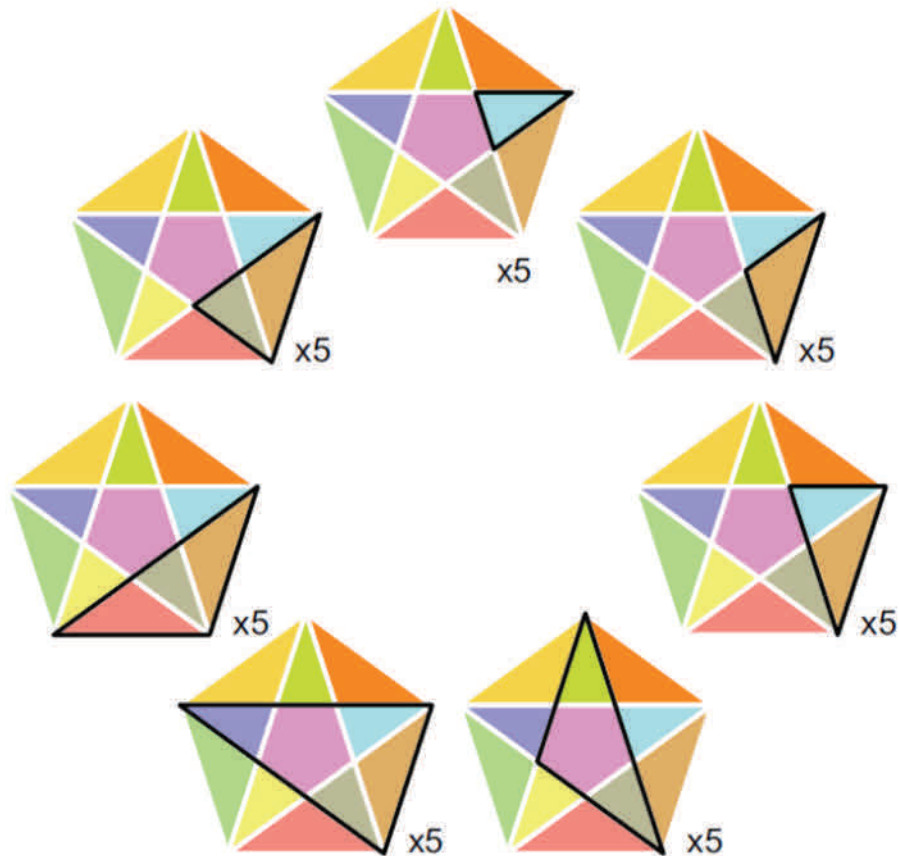October 24, 2012

Bell Ringer

October 25, 2012

How many triangles can you find in the figure below?
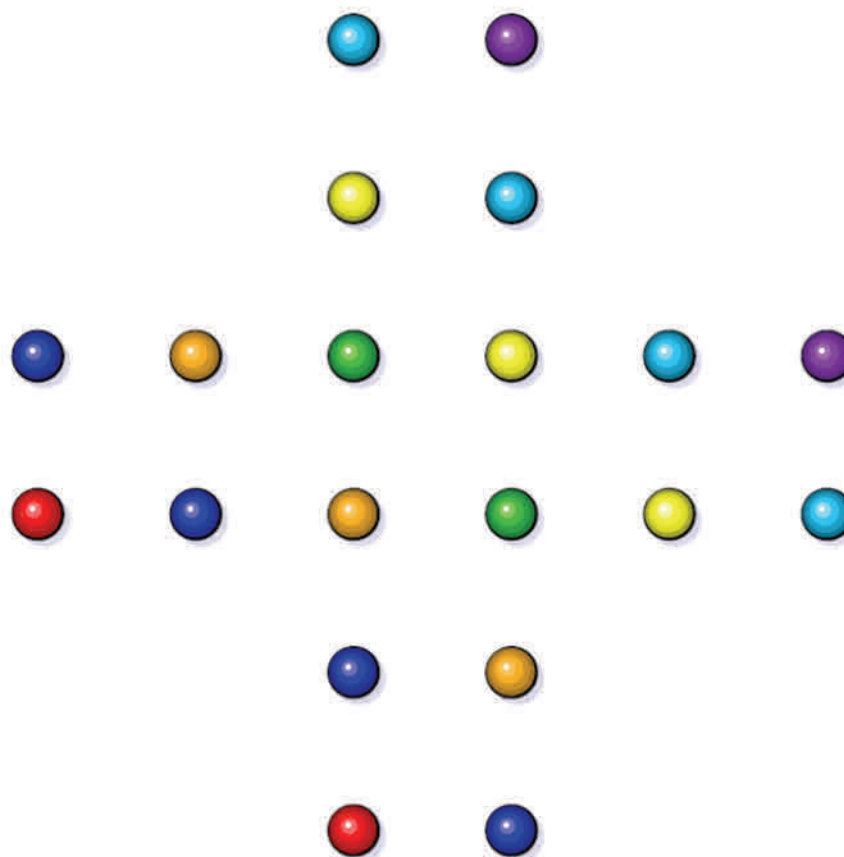
Bell Ringer
October 25, 2012

There are seven groups of triangles shown in the diagrams above. Each group consists of exactly five triangles with every triangle rotated 72 degrees around the center of the pentagon; one triangle from every group is highlighted in the respective diagram. So the total number of the triangles in the pentagon is 7x5=35.
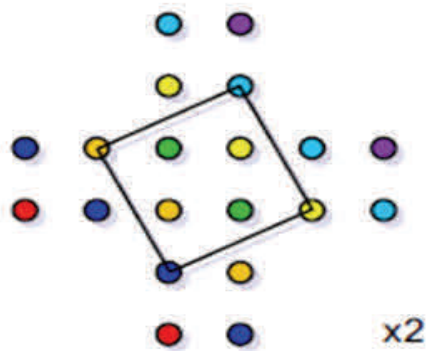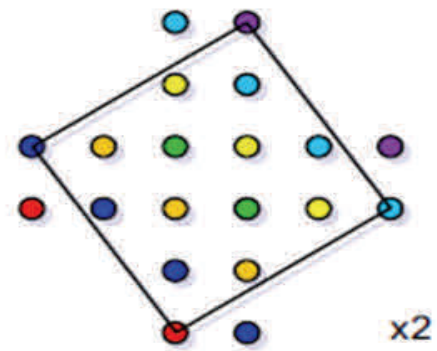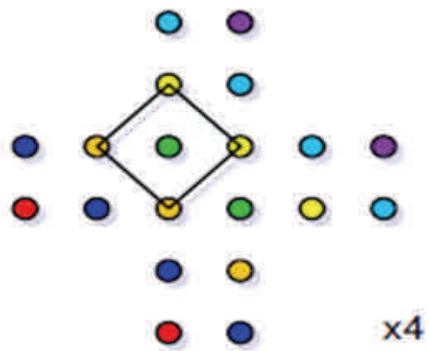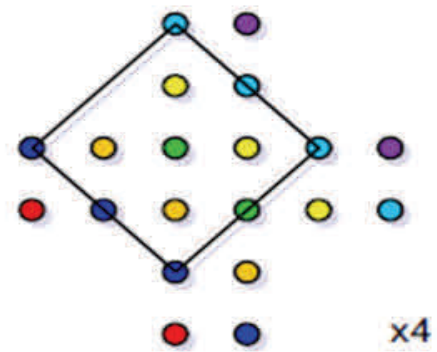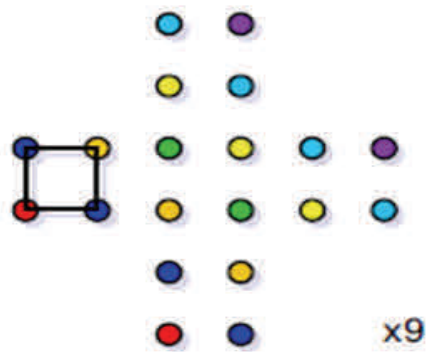
Bell Ringer
October 26, 2012

Puzzle 1. Count how many perfect squares of all possible sizes are hidden in the cross of dots on the left. A square is counting if any four dots are placed exactly in its respective corners.

Solution to Puzzle 1. The five diagrams above show all the 21 perfect squares which can be found in the cross of 20 dots.