



XXIII Math Olympiad For Elementary School

February, 10, 2019

Grade 2



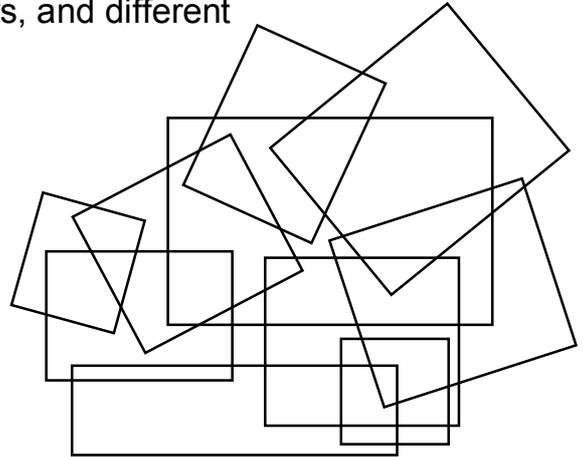
Read the problems carefully. You can solve problems in any order. Write your answers and solutions on the answer sheet.

Problem 1. Replace the following letters with digits from 1 to 7 to make the problem true. The same letters are the same numbers, and different letters must be different numbers.

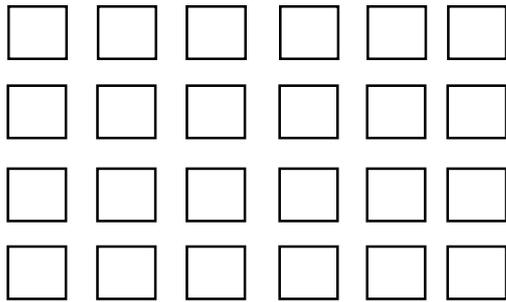
$$O \times L = I + M = P + I + A = D \times A$$

Problem 2. There were 10 pieces of paper on the floor. Mike threw 3 darts, pinning all of the papers to the floor.

Where did Mike's darts land??

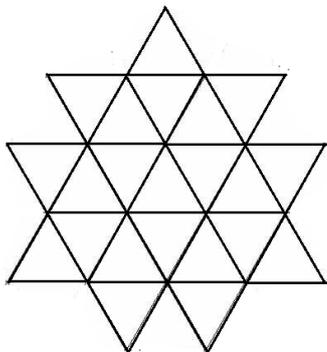
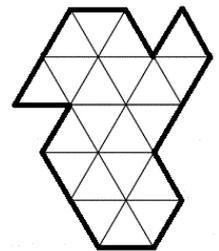


Problem 3. Pinocchio was weighing coins. It turned out that a silver coin weighed more than a gold coin, and a silver coin together with a bronze coin weighed as much as 2 gold coins. Order the coins by their weights.



Problem 4. Peter left his house, turned right, passed 3 houses (not counting his own), turned right, passed two houses, turned right again, passed 2 houses, turned left, passed one house, turned left again, passed 3 houses and saw Mary's house ahead on the right. Label Peter and Mary's houses on the picture.

Problem 5. Show how to cut the shape on the right into three equal parts. You can only cut along the lines.



Problem 6. On the picture put one of the numbers 1, 2, 3 or 4 in each of the small triangles, so that each

larger triangle like this  has all four numbers.

Problem 7. Winnie-the-Pooh wrote down a 2-digit number on a piece of paper. The Wise Owl looked at the number and said that if you add 3 to the number, the number of digits will not change, but if you add 9, it will become a 3-digit number. Then the Wise Owl noticed that you can divide the digit in the tens place by the digit in the ones place of the original number with no remainder. What was the number that Winnie the Pooh wrote down?

Problem 8. Nick laid out on his table, in a row, the following cards: a red triangle, a blue square, a yellow circle, a yellow square, and a green triangle. He took out 2 cards that were next to each other, and then 2 cards of the same shape. In the end, only one card was left on the table. What was the shape of that card?