

Junior Circle Meeting #6 – Math Kangaroo Practice

February 14, 2010

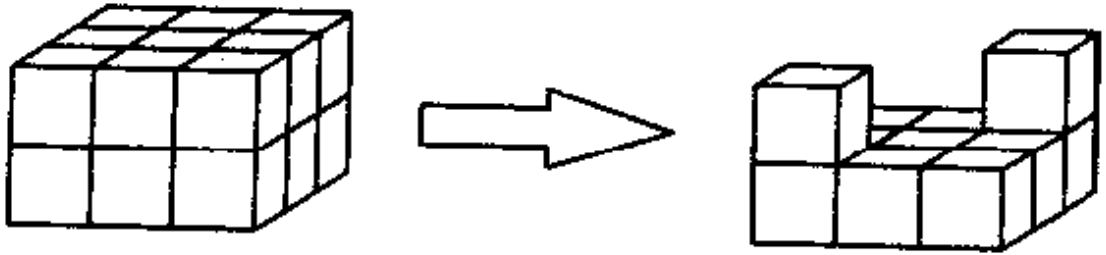
1. Mike received a book as a gift. He read pages 99 through 110. How many pages did Mike read?

2. The first day of a certain month with 30 days is a Monday. How many Mondays does this month have?

3. The necklace below has a repeated pattern of black and white beads. Can you figure out which beads are covered? Draw a picture showing the covered beads.



4. How many cubes have been removed from the first block to get the second one?



5. Kate's birthday was yesterday. It is Thursday tomorrow. What day was Kate's birthday?

6. John plays Darts. Each time he throws a dart, he gets it back. Each time he hits the bull's eye, he gains two additional darts. At the beginning he had 10 darts and at the end he has 20 darts. How many times did he hit the bull's eye?

7. Four people can sit around a square table, where one person sits at each side of the square. For the school party, the students put together 7 square tables in order to make one long rectangular table. How many people can sit at this long table now?
8. In his wallet, Stanley has one 5-dollar bill, one 2-dollar bill, and one 1-dollar bill. Which of the following amounts can Stanley not make out of the bills that he has?
- A. \$3            B. \$4            C. \$6            D. \$7            E. \$8
9. On one side of Long Street the houses are numbered with the consecutive odd numbers from 1 to 19. On the other side of that street, the houses are numbered with the consecutive even numbers from 2 to 14. How many houses are there on Long Street?

10. What is the least number we can get arranging six cards in one row, one after another, with the numbers shown below?



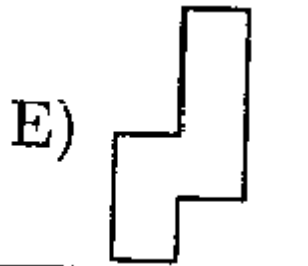
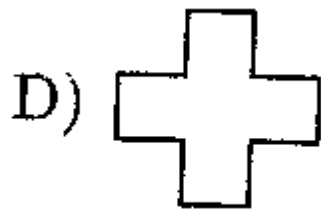
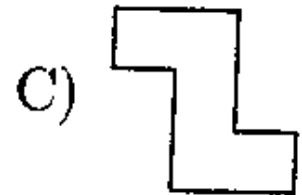
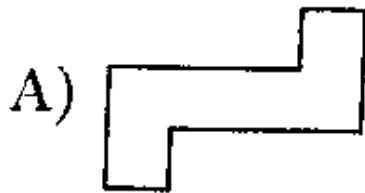
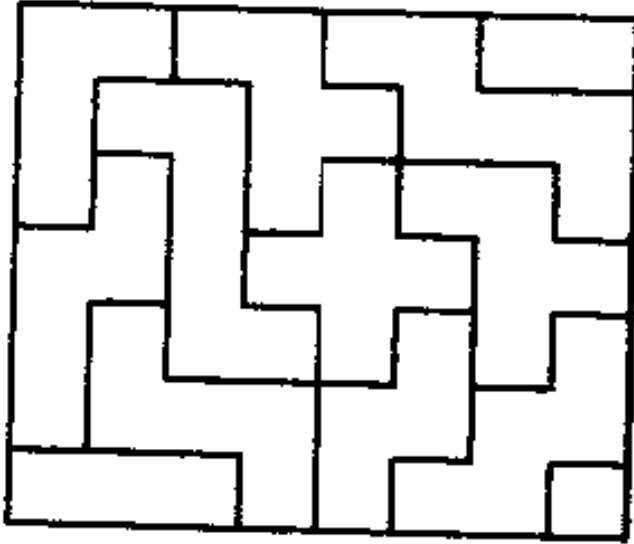
11. Six weights, weighing 1 pound, 2 pounds, 3 pounds, 4 pounds, 5 pounds, and 6 pounds were placed into three boxes (two weights in each box). The weights in the first box weigh 9 pounds together, and those in the second box weigh 8 pounds. Which weights are in the third box?

12. As Jack wrote the problem on the board, he forgot one digit:

$$23+31+2+12=94$$

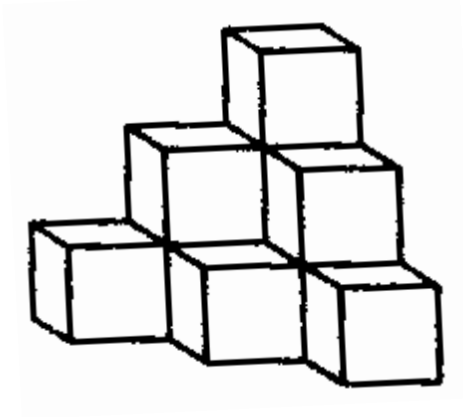
Assuming that he did the addition correctly, what is the missing digit?

13. You can move or rotate each shape in the puzzle below but you cannot turn them over. Which of the shapes below does not appear in the puzzle to the right?



14. Four crows are sitting on the fence. Their names are Dana, Hanna, Lena, and Bennie. Dana sits exactly in the middle between Hanna and Lena. The distance between Hanna and Dana is the same as the distance between Lena and Bennie. Dana sits 4 feet away from Bennie. How far is Hanna sitting from Bennie?

15. The structure shown in the picture below is made by gluing together sides of 10 cubes. Roger painted the entire structure, including the bottom. How many faces of the cubes did he paint?



16. Irena, Annie, Katie, Olga, and Elena live in the same two-story house. Two of the girls live on the first floor, three of them live on the second floor. Olga lives on a different floor than Katie and Elena. Annie lives on a different floor than Irena and Katie. Who lives on the first floor?

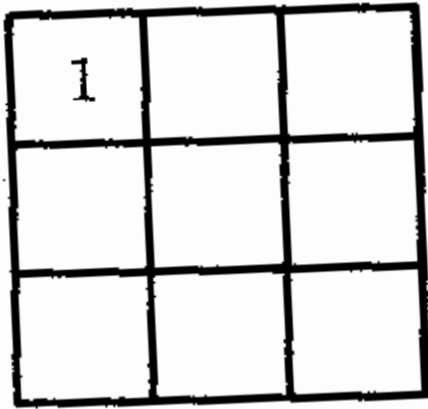
17. We put the signs +, -, and = between the digits:

4 8 3 3 6 9

in such a way that an equation is built. Which is the sequence of signs?

A) +, -, =      B) -, +, =      C) +, +, =      D) +, =, -      E) -, =, +

18. In each of the nine cells of the square below, write down one of the digits 1, 2, or 3. Do this in such a way that in each horizontal row and in each vertical column each of the digits 1, 2, and 3 will be written. If you start with a 1 in the upper left cell, in how many different ways can the square be filled?





19. The weights in the figure below are in balance. The same shapes have the same weight. The weight of each circular shape is 30 ounces. What is the weight of the square shape indicated with the question mark?

