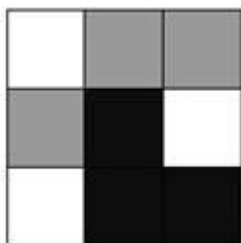


Math Kangaroo 2015 Sample Questions - Levels 5 & 6

3. Sam painted the 9 squares as shown in the figure below using the colors black, white, and gray. At least how many squares does he need to repaint so that no two squares with a common side are the same color?



- A) 2 B) 3 C) 4 D) 5 E) 6

4. There are 10 ducks. 5 of these ducks lay an egg every day. The other 5 lay an egg every other day.
How many eggs do the 10 ducks lay in a period of 10 days?

- A) 75 B) 60 C) 50 D) 25 E) 10

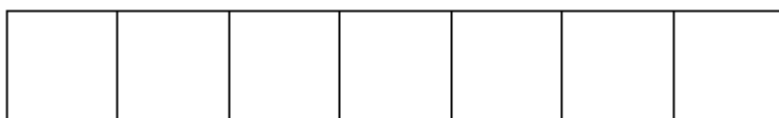
15. A student wrote down a natural number. When she divided the number by 9, the remainder was 7. What is the remainder when twice that number is divided by 9?

- A) 1 B) 2 C) 5 D) 6 E) 7

16. The area of a rectangle is 12. The lengths of its sides are natural numbers. The perimeter of this rectangle could be:

- A) 20 B) 26 C) 32 D) 28 E) 24

28. In how many ways can you color 3 different cells in the strip shown below so that no 2 neighboring cells are colored?



- A) 7 B) 8 C) 9 D) 10 E) 11

29. Four points lie on a line. The distances between them are, in increasing order: 2, 3, k , 11, 12, 14.
What is the value of k ?

- A) 5 B) 6 C) 7 D) 8 E) 9