Math Kangaroo 2009 Sample Questions - Levels 5 & 6
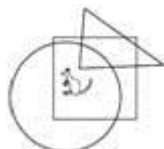
1. Which of the numbers below is even?

A) 2009   B) 2 + 0 + 0 + 9   C) 200 − 9   D) 200 × 9   E) 200 + 9
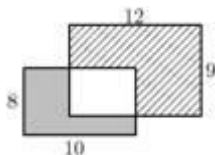
2. Where is the kangaroo?

A) In the circle and in the triangle, but not in the square.
B) In the circle and in the square, but not in the triangle.
C) In the triangle and in the square, but not in the circle.
D) In the circle, but not in the square and not in the triangle.
E) In the square, but not in the circle and not in the triangle.

13. A certain dance group started out with 39 boys and 23 girls. Every week, 6 more boys and 8 more girls joined the dance group. After a few weeks, the number of boys and the number girls in the dance group was equal. How many participants were in the dance group at that time?

A) 144   B) 154   C) 164   D) 174   E) 184

14. Two rectangles of dimensions 8 × 10 and 9 × 12 partly overlap, as shown in the picture. The area of the shaded region is 37. What is the area of the region covered with diagonal lines?

A) 60   B) 62   C) 62.5   D) 64   E) 65

21. Jane multiplied the product of 18 factors, each equal to 8, by the product of 50 factors, each equal to 5. How many digits does her final product have?

A) 13   B) 40   C) 52   D) 60   E) 100

22. Of the four statements given below about a natural number n, two are true and two are false.

n is divisible by 5
n is divisible by 11
n is divisible by 55

n is less than 10
The number n is

A) 0   B) 5   C) 10   D) 11 × 55   E) 55