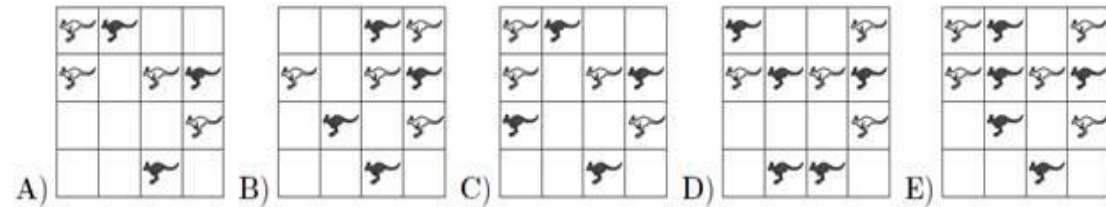


## Math Kangaroo 2013 Sample Questions - Levels 3 & 4

1. In which figure is the number of black kangaroos larger than the number of white kangaroos?

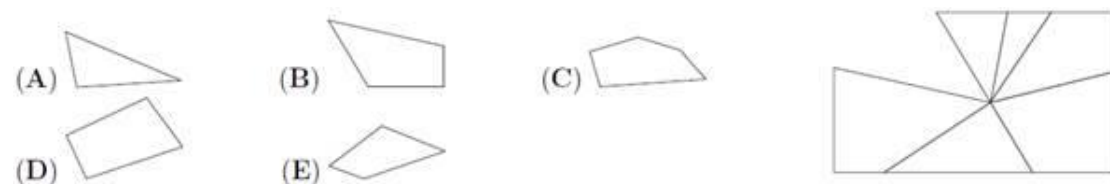


2. Aline writes a correct calculation. Then she covers two digits, which are the same with stickers (see the picture). Which digit is under the stickers?

A) 2 B) 4 C) 5 D) 7 E) 8

$$4 \square + 5 \square = 104$$

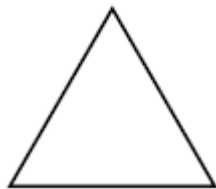
9. A rectangular mirror was broken. Which of the following pieces is missing from the picture of the broken mirror?



10. Each time Pinocchio lies, his nose gets 6 cm longer. Each time he tells the truth, his nose gets 2 cm shorter. After his nose was 9 cm long, he told three lies and made two true statements. How long was Pinocchio's nose afterwards?

- A) 14 cm    B) 15 cm    C) 19 cm    D) 23 cm    E) 31 cm

17. Joining the midpoints of the sides of the triangle in the drawing we obtain a smaller triangle. We repeat this one more time with the smaller triangle. How many triangles of the same size as the smallest resulting triangle fit in the original drawing?



- A) 5    B) 8    C) 10    D) 16    E) 32

18. After the First of January 2013, how many years will pass before the following event happens for the first time: the product of the digits in the notation of the year is greater than the sum of these digits?

- A) 87    B) 98    C) 101    D) 102    E) 103