

Math Kangaroo 2010 Sample Questions - Levels 7 & 8

2. How many axes of symmetry does the figure have?

- A) 0
- B) 1
- C) 2
- D) 4
- E) infinitely many



3. A shipment of toys is being prepared. Each toy is placed into a cube box. Exactly eight such boxes fit tightly into a larger cube carton. How many boxes with toys are on the bottom layer of the large carton?

- A) 1
- B) 2
- C) 3
- D) 4
- E) 5

11. A lumberjack chopped wood, each time cutting a piece of wood in half. When he finished he observed that after making 53 cuts he had 72 pieces of wood. With how many pieces did he begin?

- A) 17
- B) 18
- C) 19
- D) 20
- E) 21

12. The smallest two-digit number that is not the sum of three different one-digit numbers is

- A) 10.
- B) 15.
- C) 23.
- D) 25.
- E) 28.

23. Sides AB and AC of the triangle ABC are the diameters of two circles. These circles intersect at points A and P. Then, point P is necessarily

- A) the center of a circle inscribed in triangle ABC.
- B) the midpoint of side BC.
- C) inside triangle ABC.
- D) outside triangle ABC.
- E) the point of intersection of the height of triangle ABC at angle A with side BC.

24. Each of 18 cards is numbered with either a 4 or a 5. It turns out that the sum of all the numbers is divisible by 17. How many cards are labeled with a 4?

- A) 4
- B) 5
- C) 6
- D) 7
- E) 9