

## Math Kangaroo 2014 Sample Questions - Levels 5 & 6

**1.** Arnold spelled the word KANGAROO with cards showing one letter at a time. Unfortunately, some cards were rotated. By turning the K card back by 90o twice he can correct the letter K, and by turning the first A card once he can correct the first A (see the figures). How many times does he need to rotate by 90o for all of the letters to be correct?

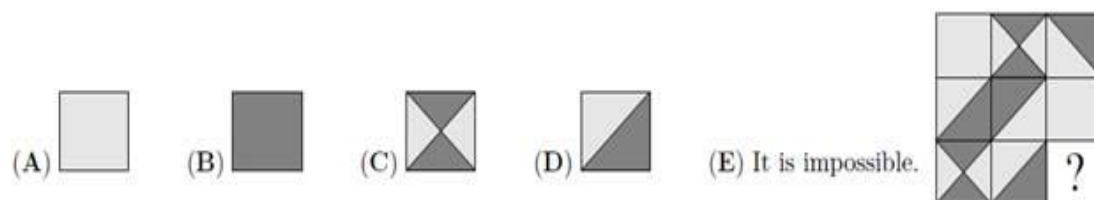


- A) 4      B) 5      C) 6      D) 7      E) 8

**2.** A cake weighs 900 g. Paul cuts it in 4 pieces. The biggest piece weighs as much as the 3 other pieces weigh together. What is the weight of the biggest piece?

- A) 250 g      B) 300 g      C) 400 g      D) 450 g      E) 600 g

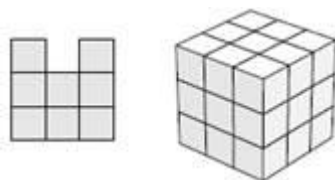
**11.** Which tile must be added to the picture so that the light gray area is as large as the dark gray area?



**12.** Henry and John started walking from the same point. Henry went 1 km north, 2 km west, 4 km south and finally 1 km west. John went 1 km east, 4 km south and 4 km west. Which of the following must be the final part of John's walk in order to reach the point where Henry ended his walk?

- A) He has already reached the same point.      B) 1 km north  
C) 1 km north-west      D) More than 1 km north-west      E) 1 km west

**21.** The 3 x 3 x 3 cube in the picture is made of 27 small cubes. How many small cubes do you have to take away to see the picture on the left as the result when looking from the right, from above, and from the front?



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

**22.** There are 5 songs: song A lasts 3 minutes, song B 2 minutes and 30 seconds, song C 2 minutes, song D 1 minutes 30 seconds, and song E 4 minutes. These 5 songs are playing in the order A, B, C, D, E in a loop without any breaks. Song C was playing when Andy left home. He returned home exactly one hour later. Which song was playing when Andy got home?

- A) A      B) B      C) C      D) D      E) E