

Year 5 and 6 (ENGLISH VERSION)

Thursday, 19th March 2020

Time allowed: 75 minutes

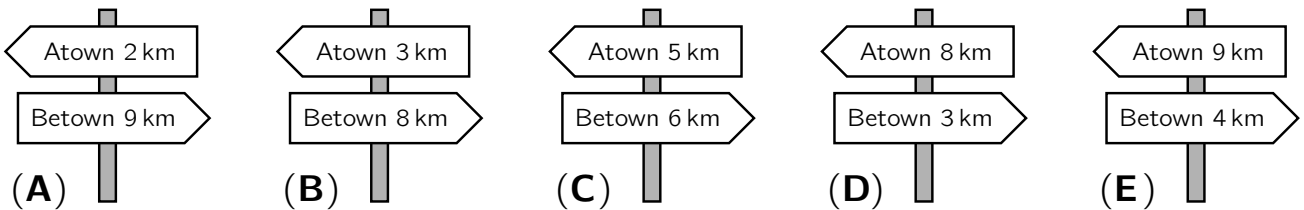
- For each question exactly one of the 5 options is correct.
- Each participant is given 24 points at the beginning. For each correct answer 3, 4 or 5 points are added. No answer means 0 points are added. If a wrong answer is given, one quarter of the points is subtracted, i. e. 0.75 points, 1 point or 1.25 points, respectively. At the end, the maximum number of points is 120, the minimum is 0.
- Calculators and other electronic devices are not allowed.

3 point problems

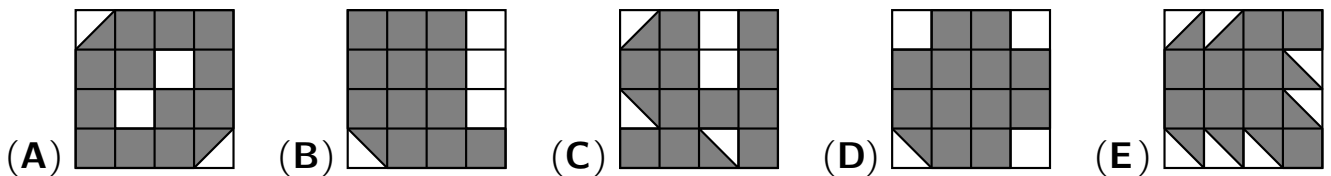
A1 Which of the following calculations has an odd number as its result?

- (A) $21 + 20 + 19$ (B) $21 \times 20 \times 19$ (C) $21 + 20 - 19$
 (D) $21 + 20 \times 19$ (E) $21 - 20 + 19$

A2 As Fabian is walking from Atown to Betown he passes the five signposts shown. Four of the signposts show the right distances. One of them is incorrect. Which one?

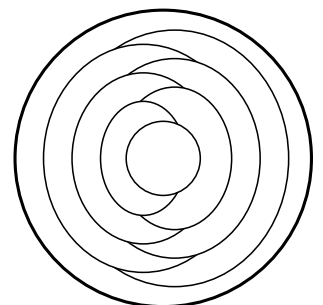


A3 In which picture is the area of the shaded part the largest?



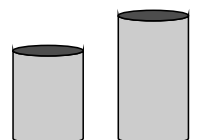
A4 Jennifer colours each region of the pattern on the right either red, blue or yellow. She colours regions that touch each other with different colours. She colours the outer region blue. How many regions of the completed pattern are coloured blue?

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

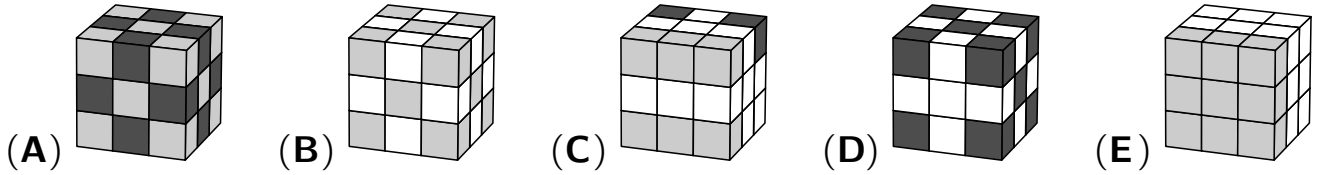


A5 Victor owns several blocks which are 5 cm or 7 cm high. He uses some of them to build a tower. Which of the following heights can this tower certainly not have?

- (A) 10 cm (B) 12 cm (C) 13 cm (D) 14 cm (E) 15 cm



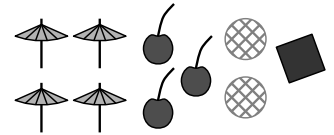
B5 Joris has 27 equally sized cubes, namely 10 white, 9 grey and 8 black cubes. Using these cubes he builds one of the following large cubes. Which one?



B6 When the bat Elise left her cave in the evening, the digital clock in her cave showed **20:20**. When she came back on that very night and, in order to rest, hung upside down, she saw on the clock **20:20** again. How long has Elise been outside?

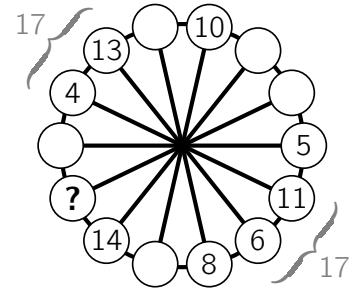
- (A) 5 hours and 42 minutes
- (B) 4 hours and 30 minutes
- (C) 4 hours and 2 minutes
- (D) 3 hours and 50 minutes
- (E) 3 hours and 32 minutes

B7 After the training we went for ice cream, one scoop for each. We ordered 4 scoops of vanilla, 3 scoops of chocolate, 2 scoops of lemon and 1 scoop of mango. The ice cream seller put 1 topping on each scoop. He used 4 umbrellas, 3 cherries, 2 wafers and 1 chocolate chip. All decorated scoops were different. Which of the following combinations did we not have?



- (A) chocolate with cherry
- (B) mango with umbrella
- (C) vanilla with umbrella
- (D) lemon with wafer
- (E) vanilla with chocolate chip

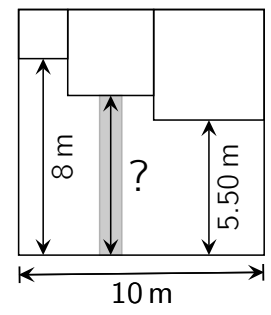
B8 The numbers 1, 2, 3, 7, 9 and 12 should be written into the empty circles. Thereby the sum of two numbers in adjacent circles must be the same as the sum of the numbers in the two opposite circles. Which number must be written in the circle with the question mark?



- (A) 1
- (B) 2
- (C) 7
- (D) 9
- (E) 12

5 point problems

C1 In her small square garden Mrs Cress built three small square patches for vegetables and herbs, as shown. How long is the path to the patch in the middle?



- (A) 6.75 m
- (B) 6.50 m
- (C) 6.25 m
- (D) 6.00 m
- (E) 5.75 m

C2 In the safari park Freya counts all ostriches and zebras – in total 12 animals. Carla counts all ostriches and gnus – in total 22 animals. Marian counts all zebras and gnus – in total 24 animals. Nathan counts all ostriches, zebras and gnus. How many animals does Nathan count?

- (A) 26
- (B) 29
- (C) 34
- (D) 48
- (E) 52

