

# **MATHEMATICS**

**LEVEL 3 – 4**  
**(Γ' - Δ' Δημοτικού)**

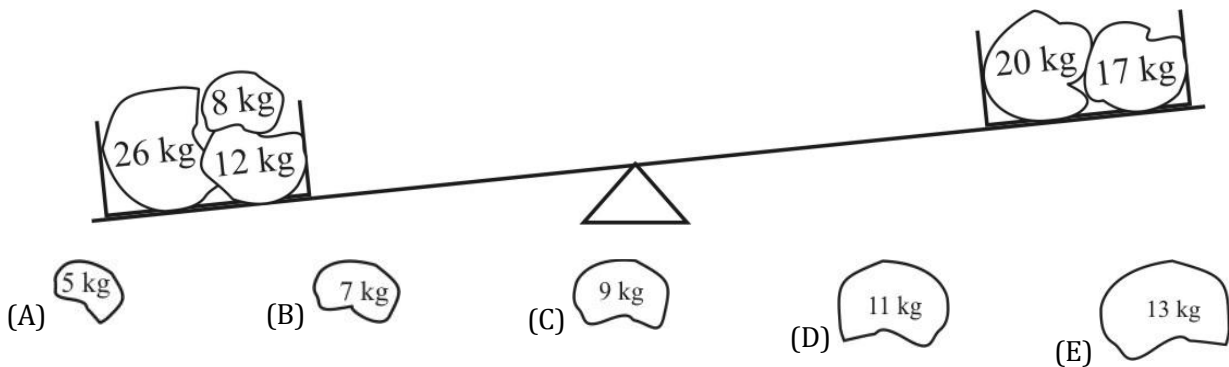
19 March 2011  
10:00-11:15

3 point

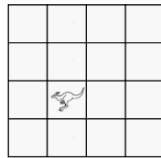
1) Basil wants to paint the word KANGAROO. He paints one letter each day. He starts on Wednesday. On what day will he paint the last letter?

- (A) Monday (B) Tuesday (C) Wednesday  
(D) Thursday (E) Friday

2) A caveman wants to balance two set of stones. Which stone should he put on the right side to have both sides equally heavy?

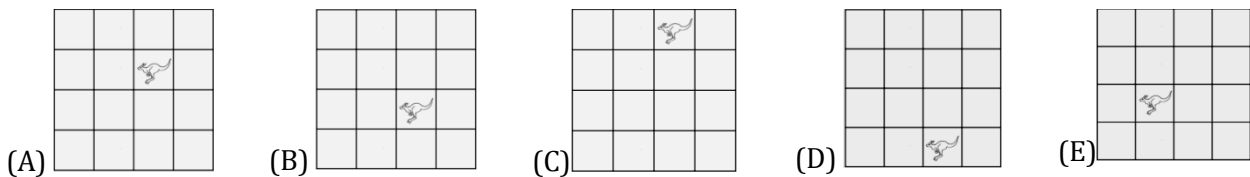


3)



A toy is in a square as seen on the picture.

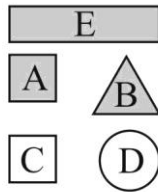
A child moves the toy from one square to the next. He uses the following order first to the right, then upwards, then to the left, then downwards, and then to the right. Which of the following pictures shows where the toy will be at the end?



4) Simon got up one hour and a half ago. In three hours and a half, he will take the train to grandmother's. How long before the train departure did he get up?

- (A) 2 hours (B) 3 hours and a half (C) 4 hours (D) 4 hours and a half (E) 5 hours

5) Maria described one of the five figures below in the following way. It is not a square. It's grey. It's either round or triangular. Which figure did she describe?



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

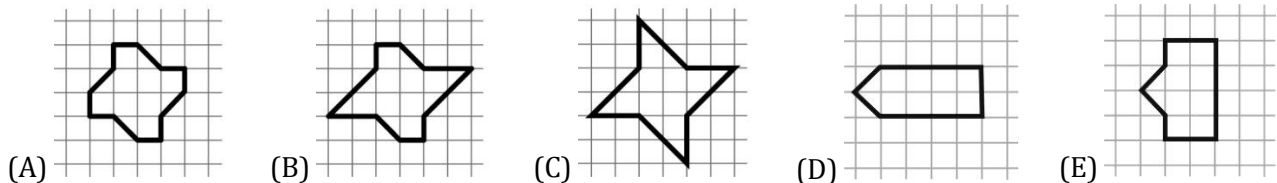
6) Lenka paid 1 euro and 50 cents for three scoops of ice-cream. Miso paid 2 euros and 40 cents for two cakes. How much did Igor pay for one scoop of ice-cream and one cake?

- (A) 1 € 70 cents      (B) 1 € 90 cents      (C) 2 € 20 cents      (D) 2 € 70 cents      (E) 3 € 90 cents

7) A tower clock strikes on the hour (that is at 8:00, 9:00, 10:00) as many times as the hour. It strikes also once when it is half past an hour (that is at 8:30, 9:30, 10:30). How many times did the clock strike from 7.55 to 10.45?

- (A) 6 times              (B) 18 times              (C) 27 times              (D) 30 times              (E) 33 times

8) Which figure has the largest area?



4 point

9) The poulterer has boxes of 6 eggs and boxes of 12 eggs. What is the least amount of boxes he needs to store 66 eggs?

- (A) 5                      (B) 6                      (C) 9                      (D) 11                      (E) 13

10) In a school class all pupils have at least one pet and at most two pets. The pupils have recorded how many pets they have all together.

Among the pupils two have both a dog and a fish. Three of the pupils have both a cat and a dog. No other pupils have two pets. How many pupils are there in this class?

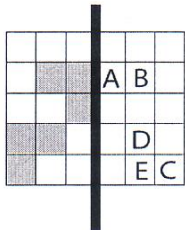


- (A) 11                      (B) 12                      (C) 13                      (D) 14                      (E) 17

11) There are 13 coins in John's pocket, each of them is either 5 or 10 cents. Which value cannot be the total value of John's coins?

- (A) 80                      (B) 60                      (C) 70                      (D) 115                      (E) 125

12) The sheet is folded along the thick line. Which letter will not be covered by a gray square?



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

13) Ann, Bob, Cleo, Dido, Eef, and Fer each roll a die. They all get different numbers.

The number Ann rolled is twice as much as Bob's.

The number Ann rolled is three times as much as Cleo's.

The number Dido rolled is four times as much as Eef's.

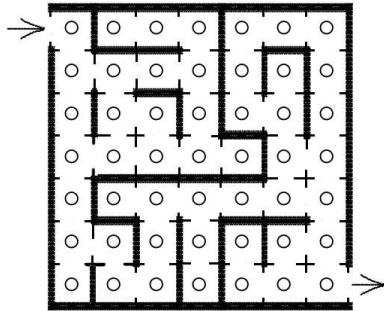
What number did Fer roll?

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

14) In a quiz show there are the following rules: every participant has 10 points at the beginning and has to answer 10 questions. For a correct answer 1 point is added and for an incorrect answer 1 point is taken away. Mrs. Smith had 14 points at the end of this quiz show. How many incorrect answers did she give?

- (A) 7                      (B) 4                      (C) 5                      (D) 3                      (E) 6

15) At each square of the magic maze there is a piece of cheese. Mouse Ron wants to enter and go out taking as many pieces of cheese as he can. He cannot step on any square twice. What is the largest number of pieces of cheese he can get?



- (A) 17                      (B) 33                      (C) 37                      (D) 41                      (E) 49

16) During a party each of two identical cakes was divided into four equal pieces. Then each of these pieces was divided into three equal pieces. After that each of the participants of this party got such a piece of cake and three more pieces were left. How many people were at this party?

- (A) 24                      (B) 21                      (C) 18                      (D) 27                      (E) 13

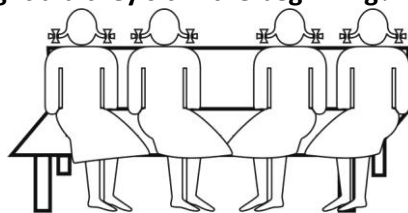
**5 point**

17) Four girlfriends Masha, Sasha, Dasha and Pasha sit on a bench.

First Masha exchanged places with Dasha.

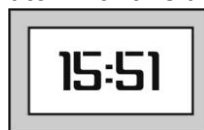
Then Dasha exchanged places with Pasha.

At the end the girls sat on the bench in the following order from left to right: Masha, Sasha, Dasha, Pasha. In what order from left to right did they sit in the beginning?



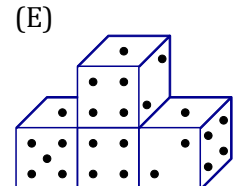
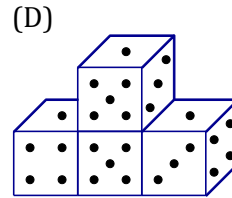
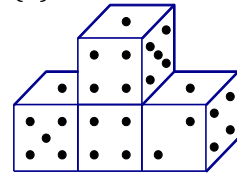
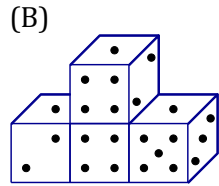
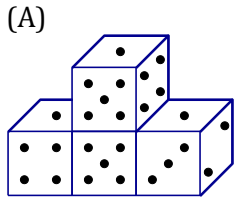
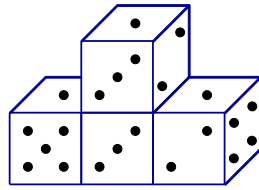
- (A) Masha, Sasha, Dasha, Pasha      (B) Masha, Dasha, Pasha, Sasha      (C) Dasha, Sasha, Pasha, Masha      (D) Sasha, Masha, Dasha, Pasha      (E) Pasha, Masha, Sasha, Dasha

18) How many times a day a digital watch with four digits shows the same digit in the four positions ? In the picture there is an example of a digital watch with two different digits.



- (A) 1                      (B) 24                      (C) 3                      (D) 5                      (E) 12

19) Four identical dice have been arranged in a structure as shown in the figure. The sum of points(dots) on any two opposite sides is equal to 7. How does this structure look like from behind?



20) You have three cards as shown in the figure. You can form different numbers with them, for example 989 or 986.



How many different 3 digit numbers can you form with these three cards?

(A) 4

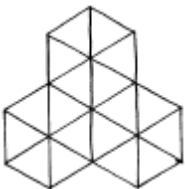
(B) 6

(C) 8

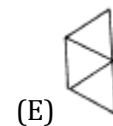
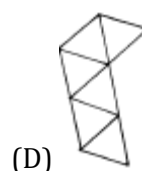
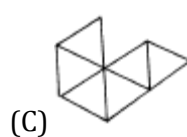
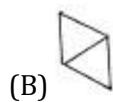
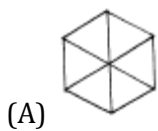
(D) 9

(E) 12

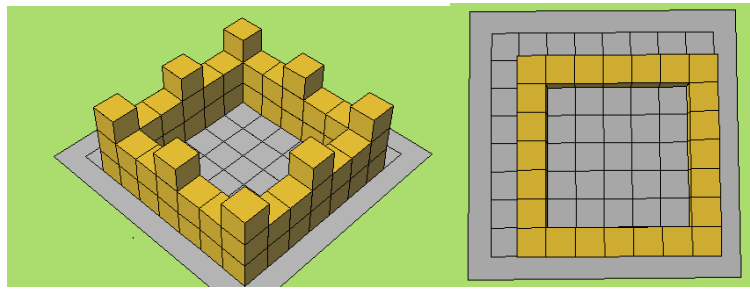
21) Andra formed the ornament in the picture by using pieces of one single shape several times.



The pieces cannot cover each other. Which of the following pieces cannot be used by Andra to create the ornament?



22) In picture 1 there is a castle built of cubes. When you look at the same castle from above it looks like in the picture 2. How many cubes were used to build the castle?

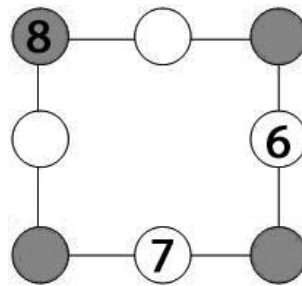


Picture 1

Picture 2

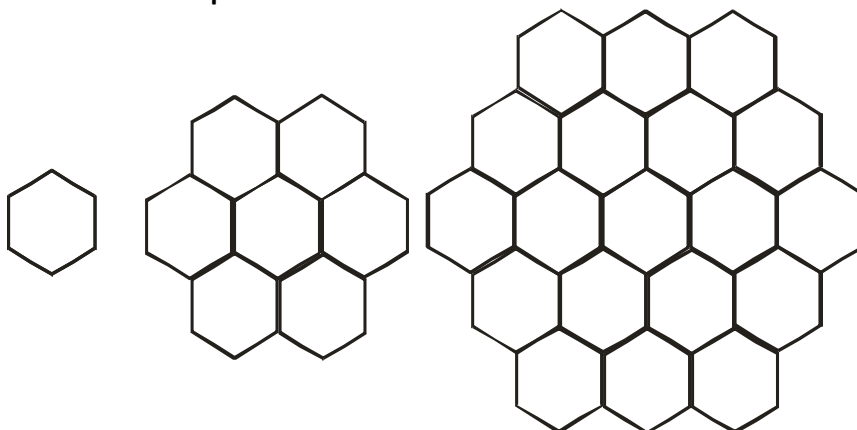
- (A) 56                      (B) 60                      (C) 64                      (D) 68                      (E) 72

23) John wrote 6, 7 and 8 in the circles as shown in the following picture. He will then write each of the numbers 1, 2, 3, 4 and 5 in the circles so that the sum of the numbers in each of the sides of the square is equal to 13. What will be the sum of the numbers in the shaded circles?



- (A) 12                      (B) 13                      (C) 14                      (D) 15                      (E) 16

24) Sylvia drew figures with hexagons like in the picture. How many hexagons will the fifth figure contain, if she continues with this pattern?



- (A) 37                      (B) 49                      (C) 57                      (D) 61                      (E) 64