



Kangaroo 2011 Ecolier

(4th and 5th class)

NAME _____ CLASS/GROUP _____

Points: _____ **Kangaroo leap:** _____

Separate the answer sheet from the test.

Write your answer under each problem number.

If you do NOT know the answer, leave the space empty.

For each WRONG answer, 1/4 of the points is deducted. DO NOT guess!

| | | | | | | | |
|---------|---|---|---|---|---|---|---|
| PROBLEM | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ANSWER | | | | | | | |

| | | | | | | | |
|---------|---|---|----|----|----|----|----|
| PROBLEM | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| ANSWER | | | | | | | |

| | | | | | | | |
|---------|----|----|----|----|----|----|----|
| PROBLEM | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| ANSWER | | | | | | | |



Kangaroo 2011 Ecolier (4th and 5th class)

3 points

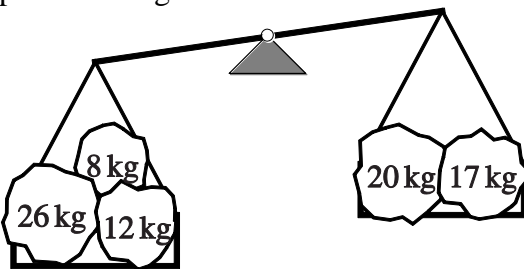
1.






Basil wants to paint the word KENGURU. 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.

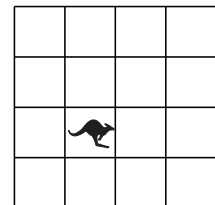
A caveman wants to balance the two set of stones shown in the picture. Which extra stone should he put on the right-hand side to make both sides equally heavy?

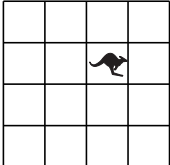
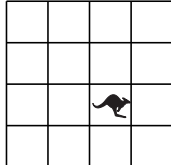
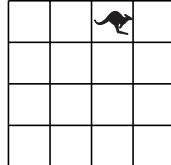
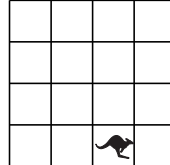
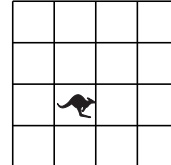


- (A) 
- (B) 
- (C) 
- (D) 
- (E) 

3.

A toy kangaroo is on one square of a board, as shown in the picture. A child moves the toy from one square to a neighbouring square. 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?



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

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 and a half hours
- (C) 4 hours
- (D) 4 and a half hours
- (E) 5 hours



Kangaroo 2011 Ecolier (4th and 5th class)

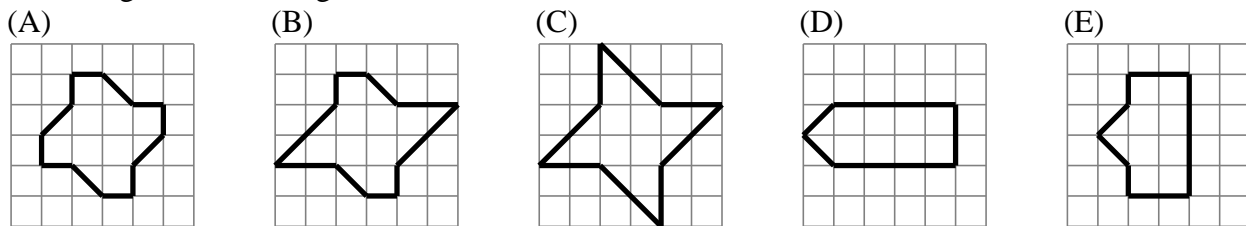
5.

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 euro 70 cents (B) 1 euro 90 cents (C) 2 euro 20 cents
(D) 2 euro 70 cents (E) 3 euro 90 cents

6.

Which figure has the largest area?



7.

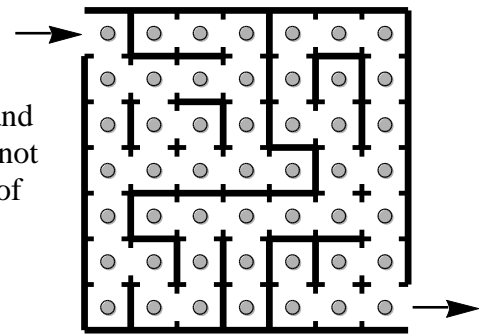
A tower clock strikes on the hour (that is, at 8:00, 9:00, 10:00 and so on) as many times as the hour. The clock also strikes once when the time is half past an hour (that is, at 8:30, 9:30, 10:30 and so on). How many times did the clock strike from 7:55 to 10:45?

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

4 points

8.

The picture shows a magic maze. Mouse Ron enters the maze and wants to leave with 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

9.

The poulterer has boxes of 6 eggs and boxes of 12 eggs. What is the smallest number of boxes he needs in order to store 66 eggs?

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

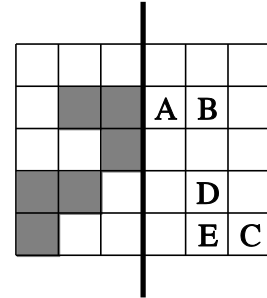


Kangaroo 2011 Ecolier (4th and 5th class)

10.

The sheet shown in the picture is folded along the thick line.
Which letter will not be covered by a grey square?

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

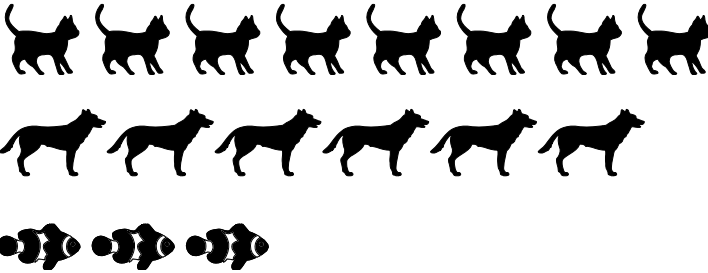


11.

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.
- Nobody has two cats.
- Nobody has a cat and a fish.

How many pupils are there in this class?



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

12.

There are 13 coins in John's pocket. Each coin is either 5 or 10 cents. Which of the following cannot be the total value of John's coins?

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

13.

During a party each of two identical cakes was divided into four equal parts. Then each of these parts was divided into three equal slices. Each person at the party got a slice of cake and three slices were left over. How many people were at the party?

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

14.

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

The number Ann rolled is twice Bob's number.

The number Ann rolled is three times Cleo's.

The number Dido rolled is four times Eef's.

What number did Fer roll?

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



5 points

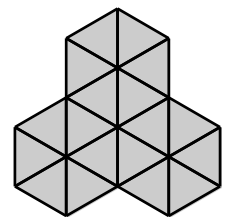
15.

A quiz show has 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 the quiz show. How many incorrect answers did she give?

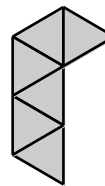
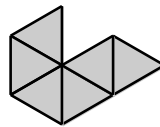
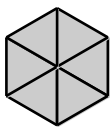
- (A) 7 (B) 4 (C) 5 (D) 3 (E) 6

16.

Andra wants to make the pattern 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 make the pattern?



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

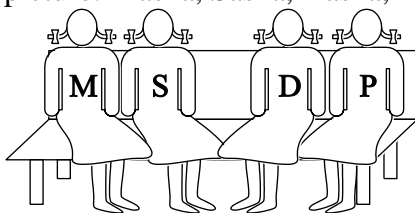


17.

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, as shown in the picture: 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

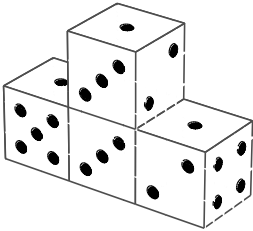


Kangaroo 2011 Ecolier (4th and 5th class)

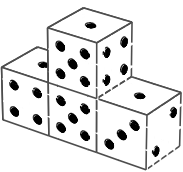
18.

The picture shows an arrangement of four identical dice.

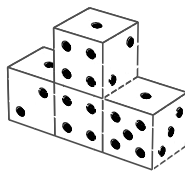
On each die, the total number of pips on each pair of opposite faces is 7. What does the arrangement look like from behind?



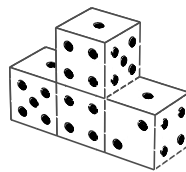
(A)



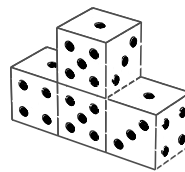
(B)



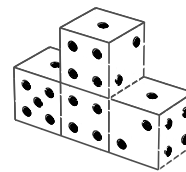
(C)



(D)



(E)



19.

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



Altogether, how many different 3-digit numbers can you form with these three cards?

(A) 4

(B) 6

(C) 8

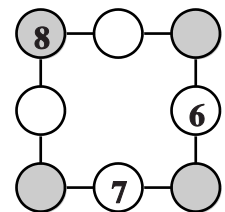
(D) 9

(E) 12

20.

John has written 6, 7 and 8 in three of the circles shown in the picture.

He now writes each of the numbers 1, 2, 3, 4 and 5 in the remaining circles so that the sum of the numbers along each side of the square is equal to 13. What will be the sum of the numbers in the shaded circles?



(A) 12

(B) 13

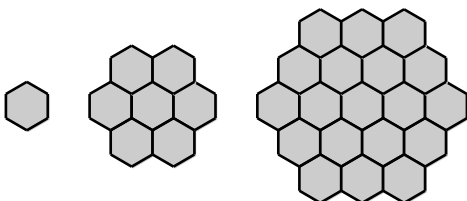
(C) 14

(D) 15

(E) 16

21.

Sylvia drew three shapes made from hexagons, as shown in the picture.



She continues with this pattern. How many hexagons will the fifth figure contain?

(A) 37

(B) 49

(C) 57

(D) 61

(E) 64