



NAME \_\_\_\_\_ CLASS \_\_\_\_\_

**Points:** \_\_\_\_\_ **Kangaroo leap:** \_\_\_\_\_

Separate this answer sheet from the test.

Write your answer under each problem number.

For each wrong answer, 1/4 of the points of the problem will be deducted.

If you don't want to answer a question, leave the space empty and no deduction will be made.

PROBLEM	1	2	3	4	5	6	7
ANSWER							

PROBLEM	8	9	10	11	12	13	14
ANSWER							

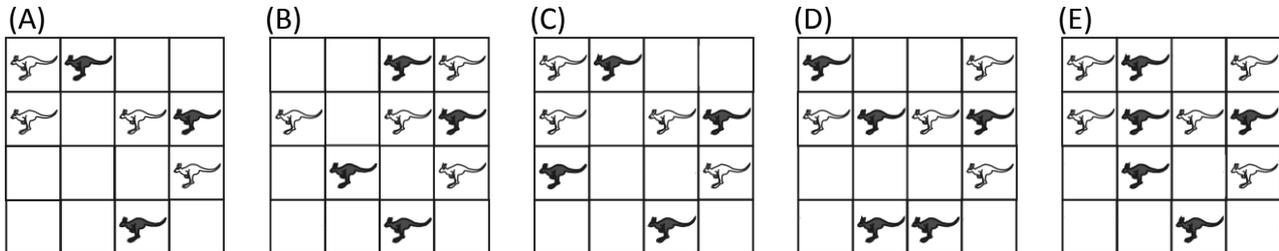
PROBLEM	15	16	17	18	19	20	21
ANSWER							



3 points

1.

In which figure is the number of black kangaroos bigger than the number of white kangaroos?



2.

Nathalie wanted to build the same cube as Diana had (figure 1). However, Nathalie ran out of small cubes and built only a part of the cube, as you can see in the figure 2. How many small cubes does Nathalie need to complete her figure?

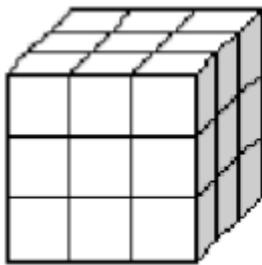


Figure 1

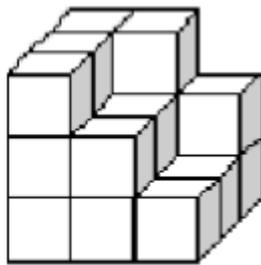
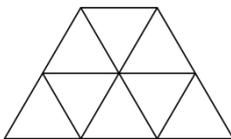


Figure 2

- (A) 5                      (B) 6                      (C) 7                      (D) 8                      (E) 9

3.

How many triangles can be seen in the picture below?



- (A) 9                      (B) 10                      (C) 11                      (D) 12                      (E) 13

4.

In London 2012, the USA won the most medals: 46 gold, 29 silver and 29 bronze. China was second with 38 gold, 27 silver and 23 bronze. How many more medals did the USA win than China?

- (A) 6                      (B) 14                      (C) 16                      (D) 24                      (E) 26



5.

Daniel had a package of 36 candies. He divided all the candies equally among all his friends. Which of the following was definitely **not** the number of his friends?

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

6.

Vero's mum prepares sandwiches with two slices of bread each. A package of bread has 24 slices. How many sandwiches can she prepare from two and a half packages of bread?

- (A) 24                      (B) 30                      (C) 48                      (D) 34                      (E) 26

7.

Five boys said the following about the number 325:

Andrei: "This is a 3-digit number."

Boris: "All digits are different."

Vitya: "The sum of the digits is 10."

Grisha: "The units digit is 5."

Danya: "All digits are odd."

Which boy was wrong?

- (A) Andrei                      (B) Boris                      (C) Vitya                      (D) Grisha                      (E) Danya

**4 points**

8.

When Pinocchio lies, his nose gets 6 cm longer. When he tells the truth, his nose gets 2 cm shorter. When his nose was 9 cm long, he told three lies and made two true statements. How long was Pinocchio's nose afterwards?

- (A) 14 cm                      (B) 15 cm                      (C) 19 cm                      (D) 23 cm                      (E) 31 cm



9.

In a shop you can buy oranges in boxes of three different sizes: with 5 oranges, with 9 oranges or with 10 oranges. Pedro wants to buy exactly 48 oranges. What is the smallest number of boxes he can buy?

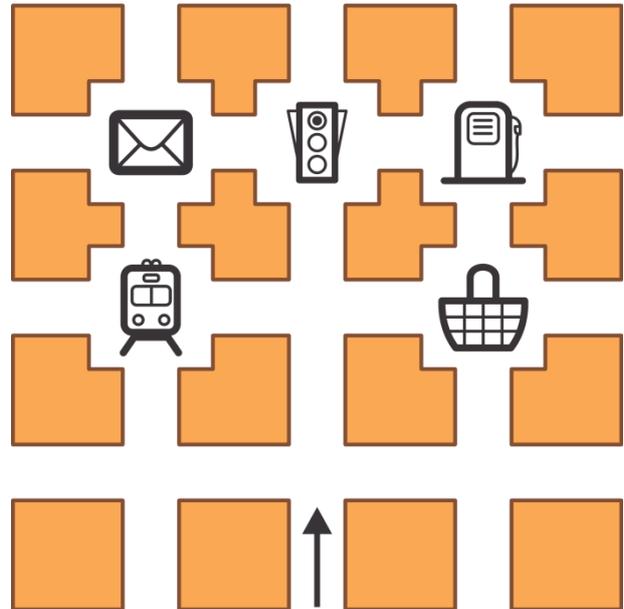
- (A) 8      (B) 7      (C) 6      (D) 5      (E) 4

10.

Anna enters a small town in the direction of the arrow. At every intersection of streets she turns either to the right or to the left. First she goes to the right, then to the left, then again to the left, then to the right, then to the left, and finally again to the left.

Then Anna is finally walking towards

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



11.

Schoolmates Andy, Betty, Cathie and Dannie were born in the same year. Their birthdays were on February 20th, April 12th, May 12th and May 25th, not necessarily in this order. Betty and Andy were born in the same month. Andy and Cathie were born in the same day of different months. Who of these schoolmates is the oldest?

- (A) Andy      (B) Betty      (C) Cathie      (D) Dannie      (E) impossible to determine

12.

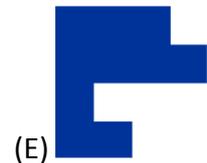
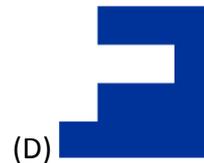
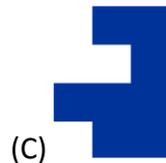
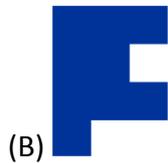
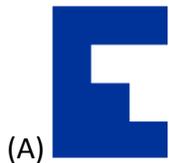
Adventure Park organized two events, and 30 children took part. 15 of them took part in the "moving bridge" contest, and 20 of them went down the zip-wire. How many children took part in both events?

- (A) 25      (B) 15      (C) 30      (D) 10      (E) 5



13.

Which of the following pieces can be used to form a rectangle with the piece on the right?



14.

The number 35 has the property that it is divisible by the digit in the unit position, because 35 divided by 5 is 7. The number 38 does not have this property. How many numbers greater than 21 and smaller than 30 have this property?

(A) 2

(B) 3

(C) 4

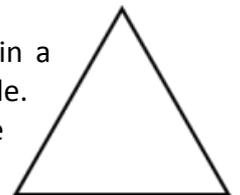
(D) 5

(E) 6

**5 points**

15.

By connecting the midpoints of the sides of the triangle in the drawing we obtain a smaller triangle. We repeat this one more time with the smaller triangle. How many triangles of the same size as the smallest resulting triangle fit in the original drawing?



(A) 5

(B) 8

(C) 10

(D) 16

(E) 32

16.

Baby Roo wrote down numbers using only the digits 0 and 1. The sum of these numbers is 2013. It turned out that it is impossible to get the same sum with a smaller number of summands of this kind. How many numbers were written by Baby Roo?

(A) 2

(B) 3

(C) 4

(D) 5

(E) 204

17.

Cristi wants to sell 10 glass bells that vary in price: 1 €, 2 €, 3 €, 4 €, 5 €, 6 €, 7 €, 8 €, 9 € and 10 €. In how many ways can Cristi divide all the glass bells into three packages so that all the packages have the same price?

(A) 1

(B) 2

(C) 3

(D) 4

(E) Such a division is not possible



18.

In December Tosha the cat slept for exactly 3 weeks. How many minutes did he stay awake during that month?

(A)  $(31 - 7) \cdot 3 \cdot 24 \cdot 60$

(B)  $(31 - 7 \cdot 3) \cdot 24 \cdot 60$

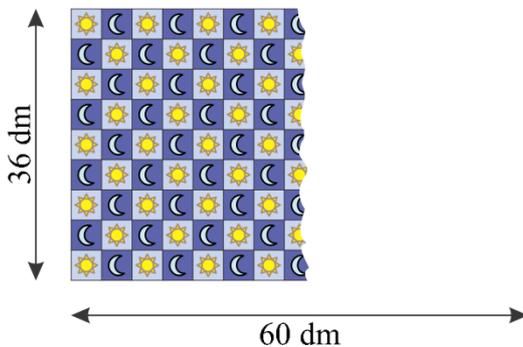
(C)  $(30 - 7 \cdot 3) \cdot 24 \cdot 60$

(D)  $(31 - 7) \cdot 24 \cdot 60$

(E)  $(31 - 7 \cdot 3) \cdot 24 \cdot 60 \cdot 60$

19.

Peter bought a carpet 36 dm wide and 60 dm long. The carpet has a pattern of small squares containing either a sun or a moon, as can be seen in the figure. You can see that along the width there are 9 squares. When the carpet is fully unrolled, how many moons can be seen?



(A) 68

(B) 67

(C) 65

(D) 63

(E) 60

20.

Beatrice has a lot of pieces like the grey one in the picture. At least how many of these grey pieces does she need to make a grey square?

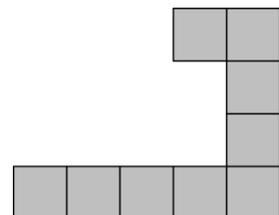
(A) 3

(B) 4

(C) 6

(D) 8

(E) 16



21.

After the First of January 2013, how many years will pass before the following event happens for the first time:

The product of the digits in the notation of the year is greater than the sum of these digits?

(A) 87

(B) 98

(C) 101

(D) 102

(E) 103