



Kangourou Sans Frontières



Wydział Matematyki i Informatyki
Uniwersytetu Mikołaja Kopernika
w Toruniu

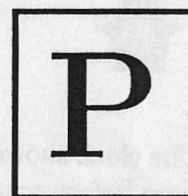
Towarzystwo Upowszechniania Wiedzy
i Nauk Matematycznych

Math Kangaroo in USA

International Mathematical Contest KANGAROO 2012

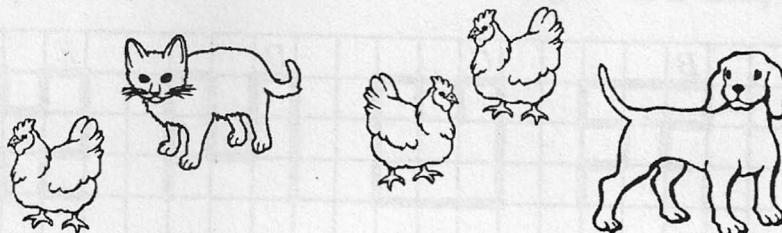
PreEcolier Level 2

Time allowed: 75 minutes
Calculators are not allowed!



3 Point Problems

1. How many legs do these animals have altogether?

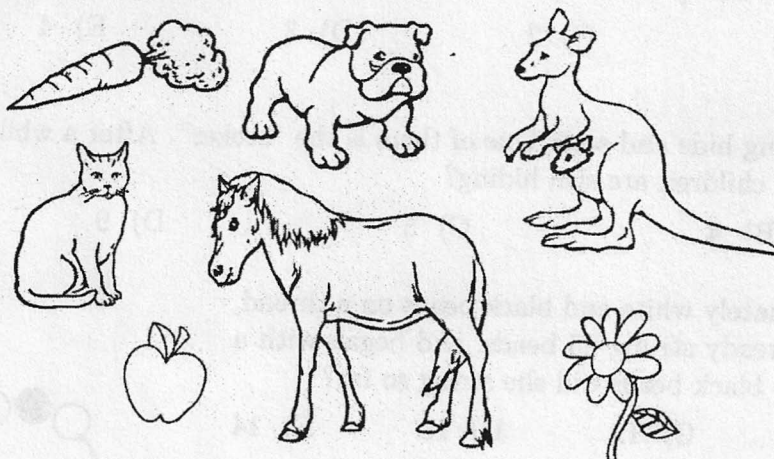


- A) 5 B) 10 C) 12 D) 14 E) 20

2. On Friday Dan starts to paint the word FOOTBALL. Each day he paints one letter. On what day of the week will he paint the last letter?

- A) Tuesday B) Wednesday C) Thursday D) Friday E) Saturday

3. How many animals are there in the picture below?

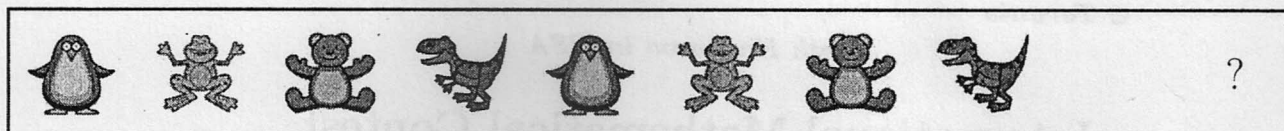


- A) 3 B) 4 C) 5 D) 6 E) 7

4. Helena wrote the word ANAKONDA three times. How many times did she write the letter A?

- A) 3 B) 6 C) 9 D) 10 E) 12

5. Luke repeats the same four stickers on a strip.

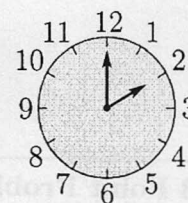


Which is the tenth sticker put down by Luke?

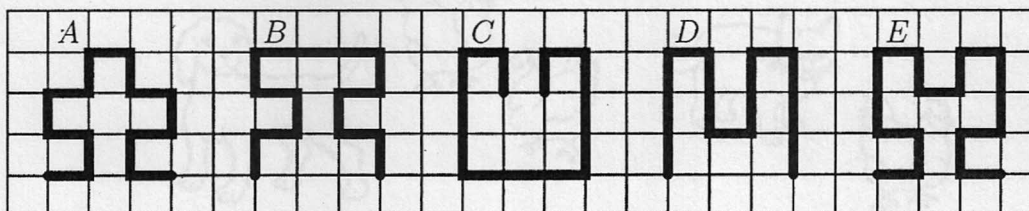
- A) B) C) D) E)

6. The clock shows the time when Stephen leaves school. Lunch at school starts 3 hours before school ends. At what time does lunch start?

- A) 10 B) 11 C) 12 D) 16 E) 17



7. Which of the bolded paths is the longest?

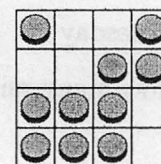


- A) A B) B C) C D) D E) E

4 Point Problems

8. There are coins on the board. We want to have 2 coins in each column and 2 coins in each row. How many coins need to be removed?

- A) 0 B) 1 C) 2 D) 3 E) 4

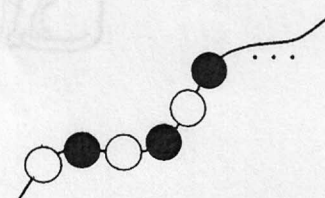


9. 13 children are playing hide and seek. One of them is the "seeker". After a while 9 children have been found. How many children are still hiding?

- A) 3 B) 4 C) 5 D) 9 E) 22

10. Mary strings alternately white and black beads on a thread, as in the figure. She already strung 23 beads, and began with a white bead. How many black beads did she string so far?

- A) 10 B) 11 C) 12 D) 13 E) 14



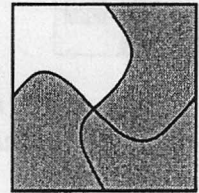
11. Grandmother made 11 cookies. She decorated 6 cookies with raisins and then 7 cookies with nuts. At least how many cookies were decorated with both raisins and nuts?

- A) 2 B) 3 C) 5 D) 7 E) 11

12. The fairy-tale garden grows 12 flowers. Every time you cut down one flower, in its place three new grow soon. The gardener cut a single flower, and then cut down another one. How many flowers grow in a fairy-tale garden now?

- A) 10 B) 12 C) 14 D) 16 E) 18

13. Which piece fits in the empty place in the puzzle on the right?



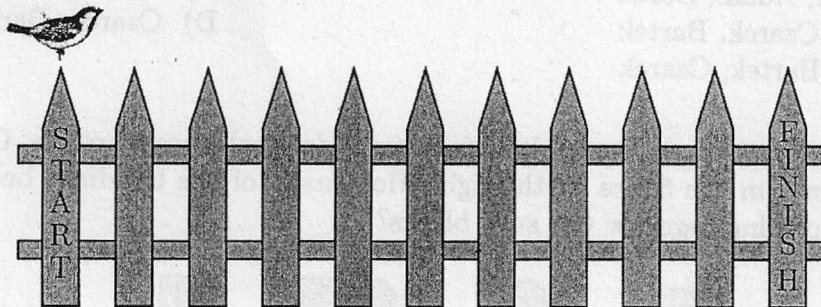
- A) B) C) D) E)

14. Winnie the Pooh bought 4 apple pies and Eeyore bought 6 cheesecakes. They each paid the same amount of money and together they paid 24 euros. How many euros does 1 cheesecake cost?

- A) 1 B) 2 C) 4 D) 6 E) 12

5 Point Problems

15. Sparrow Jack jumps on a fence from one post to another. Each jump takes him 2 seconds. He makes 4 jumps ahead, then 1 jump back and again 4 jumps ahead and 1 back, and so on. In how many seconds does Jack get from START to FINISH?



- A) 34 B) 28 C) 20 D) 14 E) 10

16. In a box there are three boxes, and each one of these boxes contains three smaller boxes. How many boxes are there in total?

- A) 7 B) 9 C) 10 D) 12 E) 13

17. Olga, while in her room, drew a picture on the window (the figure on the right presents the picture visible from the room of Olga). Marta, walking next to the home of Olga, looked at this window. Which of the following images did Marta see?



- A) B) C) D) E)

18. Igor, Kaja and Marcel are together 34 years old. Four years ago, Kaja was twice older than Igor. Marcel is now eight years old. How old Kaja is now?

- A) 6 B) 8 C) 10 D) 12 E) 16

19. What number is covered by the flower?

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

$$\begin{array}{rcl} 3 & = & \bigcirc + \triangle \\ 4 & = & \triangle + \triangle \\ 5 & = & \triangle + \square \\ \text{flower} & = & \bigcirc + \square \end{array}$$

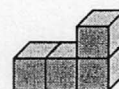
20. Adam, Bartek, Czarek and Darek are of different sizes and have different eye colors.

- The highest of them has green eyes, and the lowest has brown eyes.
- Adam is not the highest, and the eyes of Bartek are not green.
- Czarek has gray eyes and is lower than Adam.

Which list shows the names of the boys in order from highest to lowest?

- A) Bartek, Czarek, Adam, Darek B) Darek, Bartek, Adam, Czarek
C) Darek, Adam, Czarek, Bartek D) Czarek, Darek, Adam, Bartek
E) Darek, Adam, Bartek, Czarek

21. Ania has eight equal blocks, each glued from four identical wooden cubes. One such a block is shown in the figure on the right. How many of the buildings below may receive Anne pasting together two such blocks?



- A) 0 B) 1 C) 2 D) 3 E) 4