Kangaroo of Mathematics 2009
Level Écolier (Grades 3. and 4.)
Austria - 23.3.2009

- 3 point questions -
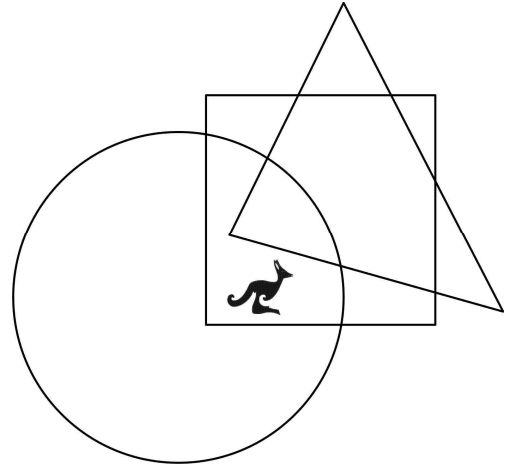
1) $2 \times 9 + 200 + 9 =$

A) 292   B) 209   C) 290   D) 272   E) 227

2) Four sticks have 8 ends. How many ends do
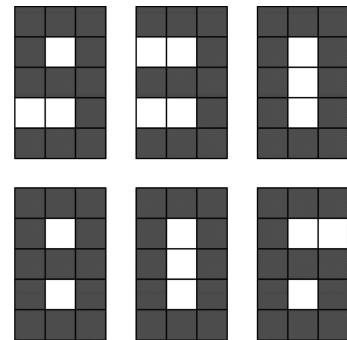7 sticks have?

A) 6   B) 8   C) 12   D) 13   E) 14

3) Where is the Kangaroo?

A) In the circle and in the triangle but not in the square.
B) In the circle and in the square but not in the triangle.
C) In the triangle and in the square but not in the circle.
D) In the circle but in neither the square or the triangle.
E) In the square but in neither the circle or the triangle.

4) In the picture you see the number 930. How many
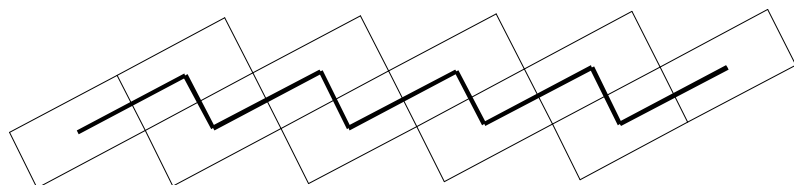small squares must be changed so that the number
becomes 806?

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

5) Mother bought 16 mandarins. Karl ate half of them, Eva ate two, und Dana
ate the rest. How many mandarins did Dana eat?

A) 4   B) 6   C) 8   D) 10   E) 12

6) In his garden Tony
made a pathway using 10
paving stones . Each
paver was 4 dm wide and
6 dm long. He then drew
a black line connecting the middle points of each paving stone. How long is the
black line?

A) 24 dm   B) 40 dm   C) 46 dm   D) 50 dm   E) 56 dm

7) Sophie rolled a die four times and scored a total of 23 points. How often did she roll a six?

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

8) A certain film lasts 90 minutes. It begins at 17:10. During the film there are two advert breaks, one lasting eight minutes and the other five minutes. At what time will the film end?

A) um 18:13   B) um 18:27   C) um 18:47   D) um 18:53   E) um 19:13
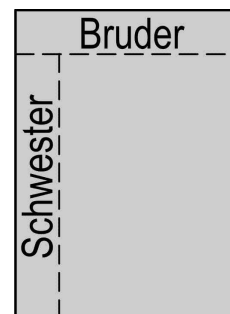
- 4 point questions -

9) In a dance group there are 25 boys and 19 girls. Every week 2 more boys and 3 more girls join the group. After how many weeks will there be the same number of boys as girls in the dance group?

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

10) Peter shared a bar of chocolate. First he broke off a row with five pieces for his brother. Then he broke off a column with 7 pieces for his sister. How many pieces were there in the entire bar of chocolate?
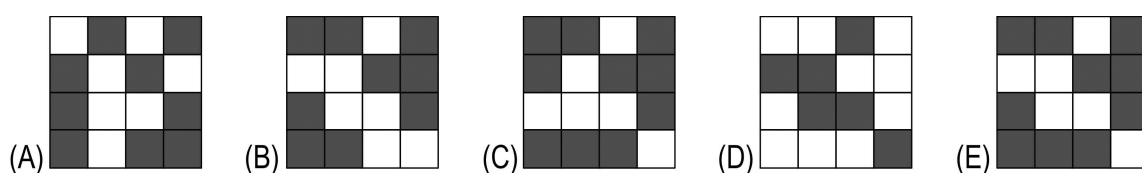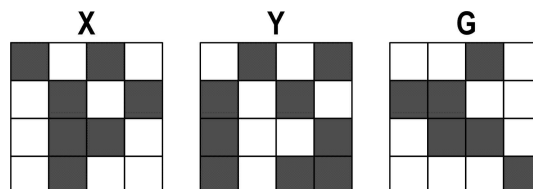
A) 28   B) 32   C) 35   D) 40   E) 54

Bruder
Schwester

11) A farmer has 30 cows, some chickens and no other animals. The total number of chickens legs is equal to the total number of cows legs. How many animals does the farmer have?

A) 60   B) 90   C) 120   D) 180   E) 240

12) Picture X is paired with picture Y. Which of the following pictures is paired with picture G?

X   Y   G
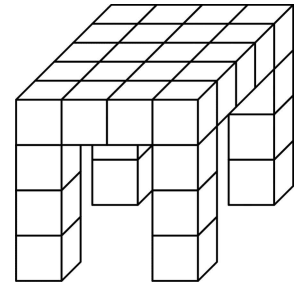
(A)   (B)   (C)   (D)   (E)

13) The length of a rectangle is 8cm. The width is half as long. How long are the sides of a square that has the same perimeter as the rectangle?

A) 4 cm   B) 6 cm   C) 8 cm   D) 12 cm   E) 24 cm

14) Thomas has made a table out of small cubes. How many small cubes did he use?
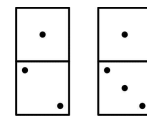
A) 24   B) 26   C) 28   D) 32   E) 36

15) Three squirrels Anni, Asia and Elli have collected 7 nuts.
They have all collected a different amount of nuts, and everybody has collected at least one nut. Anni has collected the least and Asia the most. How many nuts has Elli collected?

A) 1   B) 2   C) 3   D) 4   E) Not possible to answer.

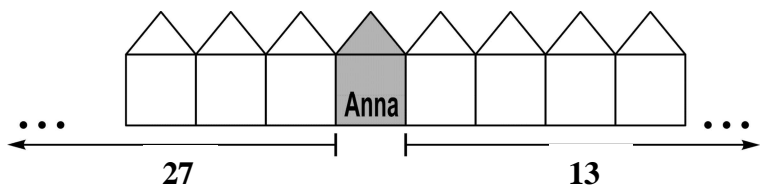16) Which of the following diagrams is impossible to make with the two dominos?

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

- **5 point Questions** -

17) A white and a black pig weigh together 320 kg. The black pig weighs 32kg more than the white one. How much does the white pig weigh?

A) 128 kg   B) 144 kg   C) 160 kg   D) 176 kg   E) 192 kg

18) Anna and Peter live in the same street. On one side of Anna's house there are 27 houses, and on the other side 13 houses. Peter lives in the house right in the middle of the street. How many houses are there between Anna's and Peter's houses?

A) 6   B) 7   C) 8   D) 14   E) 21

19) A secret agent wants to crack a six digit code. He knows that the sum of the digits in the even positions is equal to the sum of the digits in the odd positions. Which of the following numbers is the code?

A) 81**61   B) 7*727*   C) 4*4141   D) 12*9*8   E) 181*2*

20) Meta collects pictures of famous sports people. Each year she collects as many pictures as she did in the previous two years. In 2008 she had 60 photos and this year she has 96. How many photos did she have in 2006?

A) 20   B) 24   C) 36   D) 40   E) 48

21) In a vase there is one red, one blue, one yellow and one white flower. Maja the bee visits each flower exactly once. She begins with the red flower and she never flies directly from the yellow to the white flower. In how many different ways can she visit each flower?

A) 1   B) 2   C) 3   D) 4   E) 6

22) In a haunted house the house ghost suddenly disappears. At that moment in time all clocks show 6:15 o¢clock. However, there is also one strange clock in the house that shows the correct time before that event. Starting from the disappearance it starts to count backwards. At 19:30 o-clock according to the real time the house ghost reappears. What time does the odd clock show at that time?

A) 17:00   B) 17:45   C) 18:30   D) 19:00   E) 19:15

23) Sylvia draws shapes made up of straight lines which are each 1cm long. At the end of each line she continues in a right angle either to the left or right. At every turn she notes down either a ♥ or a ♠ on a piece of paper. The same symbol always indicates a turn in the same direction. Today her notes show ♥♠♠♠♥♥. Which of the following shapes could she have drawn today if A indicates her starting point?

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

24) In Funny-Foot-Land men and women wear the same sort of shoes. Each man has a left foot that is two sizes bigger than the right foot. Each woman has a left foot that is one size bigger than the right foot. However, shoes are only sold in pairs of the same size. To save money some friends decide to buy shoes together. After putting on their new shoes two shoes are left over ó one of size 36 and one of size 45. What is the minimum number of people in that group?

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