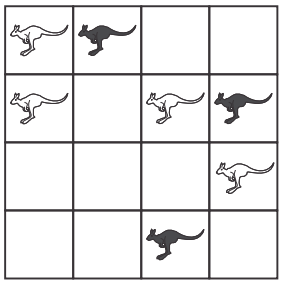
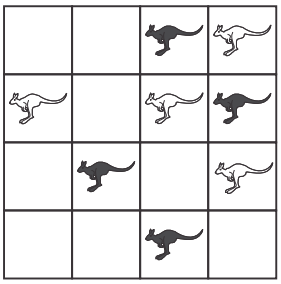
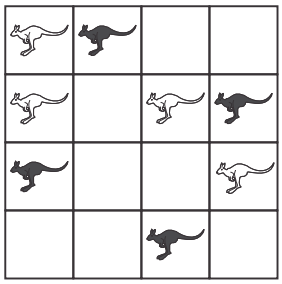
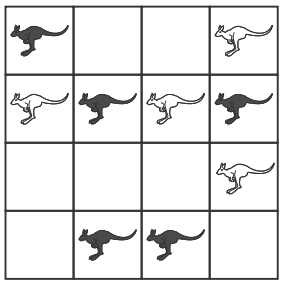
3 points

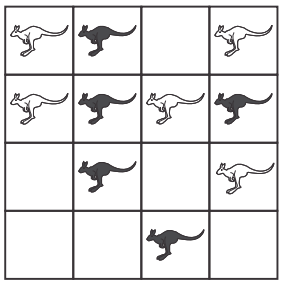
 # 1. In which figure is the number of black kangaroos bigger than the number of white kangaroos?

(**A**) 

(**B**) 

(**C**) 

(**D**) 

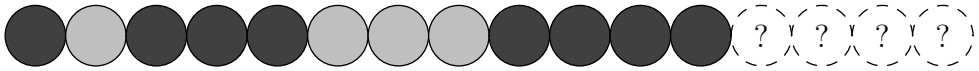
(**E**) 

 # 2. Aline writes a correct calculation. Then she covers two digits which are the same with a sticker:

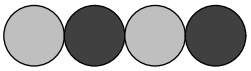
Which digit is under the stickers?

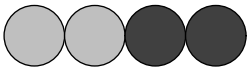
(**A**) 2 (**B**) 4 (**C**) 5 (**D**) 7 (**E**) 8

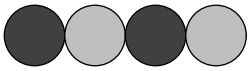
 # 3. How does the row of circles continue?

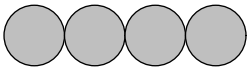


(**A**) 

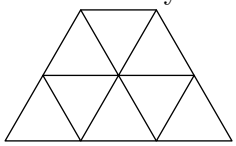
(**B**) 

(**C**) 

(**D**) 

(**E**) 

 # 4. How many triangles can be seen in the picture below?



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

 # 5. 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

 # 6. 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 friends?

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

 # 7. 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?

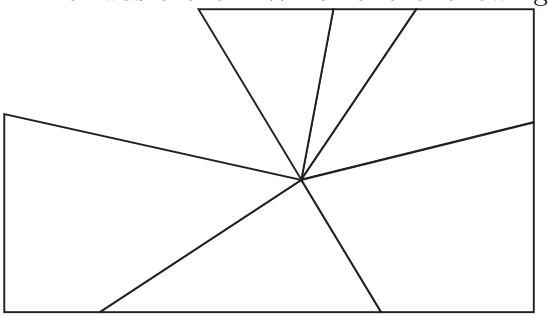
(**A**) 24 (**B**) 30 (**C**) 48 (**D**) 34 (**E**) 26

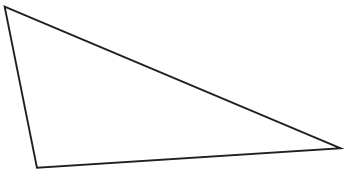
 # 8. About the number 325, five boys said:
Andrei: "This is a 3-digit number"
Boris: "All digits are distinct"
Vitya: "The sum of the digits is 10"
Grisha: "The units digit is 5"
Danya: "All digits are odd"
Which of the boys was wrong?

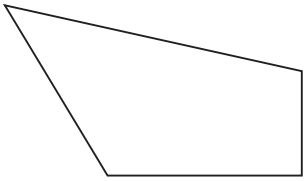
(**A**) Andrei (**B**) Boris (**C**) Vitya (**D**) Grisha (**E**) Danya

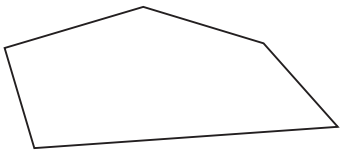
4 points

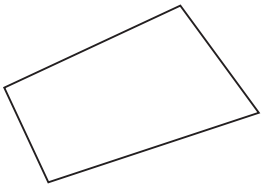
 # 9. The rectangular mirror was broken. Which of the following pieces is missing in the given figure of the broken mirror?

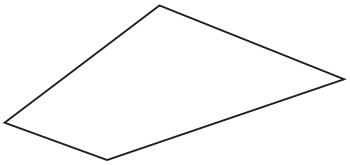


(**A**) 

(**B**) 

(**C**) 

(**D**) 

(**E**) 

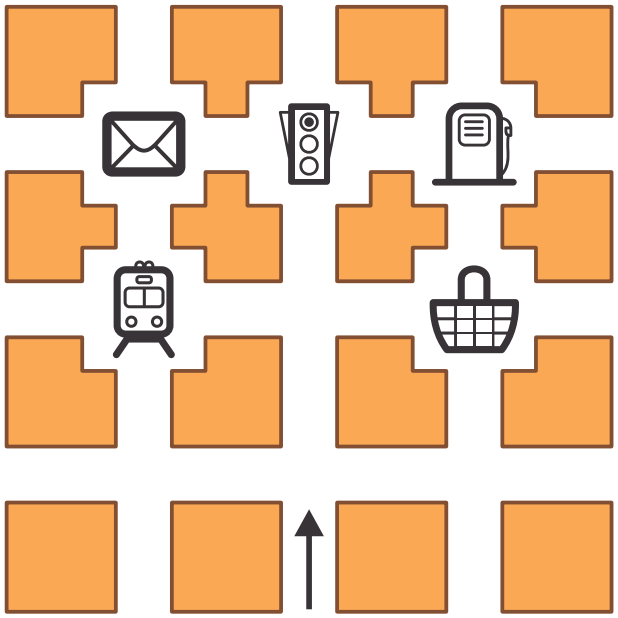
 # 10. When Pinocchio lies, his nose gets 6 cm longer. When he tells the truth, his nose gets 2 cm shorter. When his nose was 9 cm long, he told three lies and made two true statements. How long was Pinocchio's nose afterwards?

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

 # 11. 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

 # 12.  Ann starts walking 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 Ann is finally walking towards

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

 # 13. 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

 # 14. 30 children from Adventure Park took part in events. 15 of them took part in the "moving bridge" contest, and 20 of them went down the zip-wire. How many children from Adventure Park took part in both events?

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

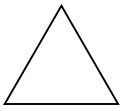
 # 15. Which of the following pieces fits with the piece in the following picture such that together they form a rectangle?

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

 # 16. 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 greather than 21 and smaller than 30 have this property?

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

5 points

 # 17. Joining the mid points 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

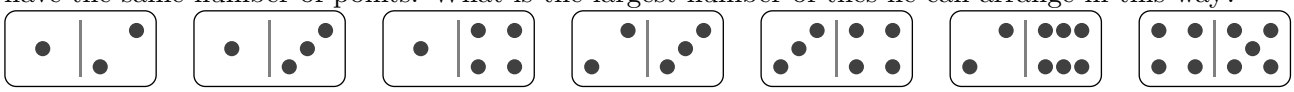
 # 18. After the First of January 2013, how many years will pass before the following event happens for the first time: the product of digits in the notation of the year is greater than the sum of these digits?

(**A**) 87 (**B**) 98 (**C**) 101 (**D**) 102 (**E**) 103

 # 19. In December Tosha-the-cat slept for exactly 3 weeks. How many minutes did he stay awake during this 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**) $(31-7\cdot 3)\cdot 24\cdot 60\cdot 60$

 # 20. Basil has several domino tiles, as shown in the figure. He wants to arrange them in a line according to the following "domino rule": in any two neighboring tiles, the neighboring squares must have the same number of points. What is the largest number of tiles he can arrange in this way?

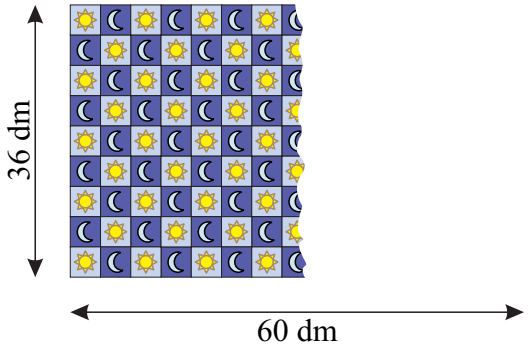


(**A**) 3 (**B**) 4 (**C**) 5 (**D**) 6 (**E**) 7

 # 21. Cristi has to sell 10 glass bells that vary in price: 1 euro, 2 euro, 3 euro, 4 euro, 5 euro, 6 euro, 7 euro, 8 euro, 9 euro, 10 euro. In how many ways can Cristi divide all the glass bells in 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.

 # 22. 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?

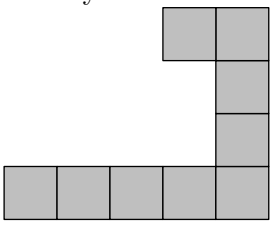


(**A**) 68 (**B**) 67 (**C**) 65 (**D**) 63 (**E**) 60

 # 23. Baby Roo wrote down several 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

 # 24. Beatrice has a lot of pieces like the grey one in the picture. At least how many of these grey pieces do you need to make a grey square?



(**A**) 3 (**B**) 4 (**C**) 6 (**D**) 8
(**E**) 16