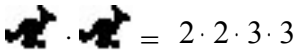
3 points

1) Which is the smallest ?

A) 2 + 0 + 0 + 8 B) 200 : 8 C) 2 · 0 · 0 · 8 D) 200 – 8 E) 8 + 0 + 0 – 2

2) By what can  be replaced to have:



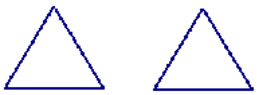
A) 2 B) 3 C) 2 · 3 D) 2 · 2 E) 3 · 3

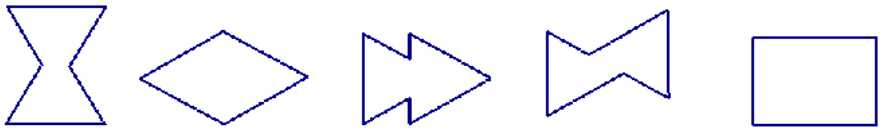
3) John likes to multiply by 3, Pete likes to add 2, and Nick likes to subtract 1. In what order should they perform their favorite actions to convert 3 into 14?

A) John Pete Nick B) Pete John Nick C) John Nick Pete

D) Nick John Pete E) Pete Nick John

4) Carol is making figures with two triangular cards shown. Which figure is impossible for her?





A) B) C) D) E)

5) Before the snowball fight, Paul had prepared a few snowballs. During the fight, he made another 17 snowballs and he threw 21 snowballs at the other boys. After the fight, he had 15 snowballs left. How many snowballs had Paul prepared before the fight?

A) 53 B) 33 C) 23 D) 19 E) 18

6) This is a small piece of the multiplication table.

×	4	3
5	20	15
7	28	21

And this is another one, in which, unfortunately, some numbers are missing.

×		
	35	63
	30	?

What is the number in the square with the question mark ?

A) 54 **B) 56** **C) 65** **D) 36** **E) 42**

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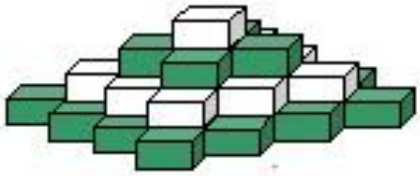
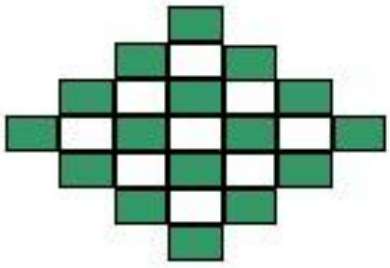
7) In a shop selling toys a four-floor black and white "brickflower" is displayed. (picture 1). Each floor is made of bricks of the same colour. On picture 2, the flower is shown from the top. How many white bricks were used to make the flower?



picture 1



picture 2

A) 9 B) 10 C) 12 D) 13 E) 14

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4 points

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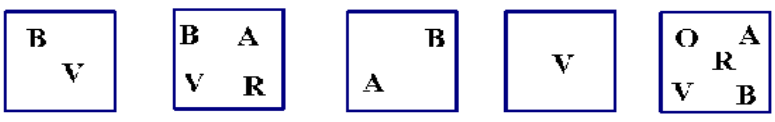
8) With what number of identical matches is it impossible to form a triangle? (The matches should not be broken and you must use all the matches!)

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

---

9) There are 5 boxes and each box contains some cards labeled A, E, I, O, U as shown. Peter wants to remove cards from each box in such a way that each box in the end contains only one card, and different boxes contain cards with different letters. What card remains in the box on the right?



A) it is impossible B) A C) V D) O E) R

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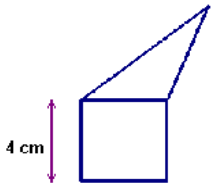
10) The triangle and the square have the same perimeter. What is the perimeter of the whole figure (a pentagon)?



A) 12 cm B) 24 cm C) 28 cm D) 32 cm
E) It depends of the triangle measures.

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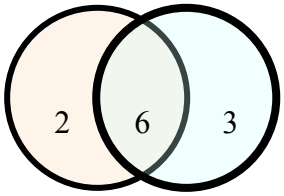
11) By shooting two arrows at the shown aiming board on the wall, how many different scores can we obtain? (Missing the board is possible.)



A) 4 B) 6 C) 8 D) 9 E) 10

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12) Rebeka wanted to put all her CDs on a shelf, but one third of them did not fit there. Those CDs that did not fit on the shelf, she put into three cases. She put seven CDs into each, but there were still two more CDs, which did not fit into those cases, so she left them on the table. How many CDs does Rebeka have?

A) 69 B) 63 C) 39 D) 23 E) 21

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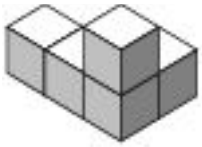
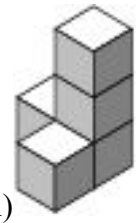
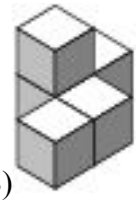
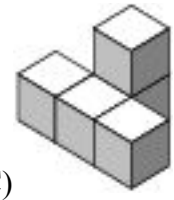
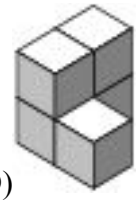
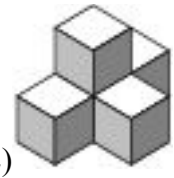
13) Which of the "buildings" (A),..., (E) – each consisting of exactly 5 cubes – can you ***not*** obtain from the building on the right hand side if you are allowed only to move exactly one cube?



A)  B)  C)  D)  E) 

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14) Today I can say: Two years later my son will be twice as old as he was two years ago. And three years later my daughter will be three times as old as she was three years ago. What's right?

A) The son is one year older than the daughter
B) The daughter is one year older than the son
C) They are of equal age
D) The son is two years older than the daughter
E) The daughter is two years older than the son

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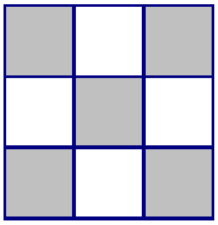
5 points

15) Suppose you make a journey over the squared board shown, and you visit every square exactly once. Where must you start, if you can move only horizontally or vertically, but not diagonally?



A) In the middle square B) At a corner square
C) At an unshaded square D) At a shaded square
E) You can start at any square

16) The five signs represent five of the different digits 1, 2, 3, 4, 5, 6, 7, 8, ja 9. What digit represents the question mark?

♥ + ♥ + ♥ = ☆
⌘ + ⌘ + ⌘ = ✦
☆ + ✦ = ☺
☺ = ?

A) 0 B) 2 C) 6 D) 8 E) 9

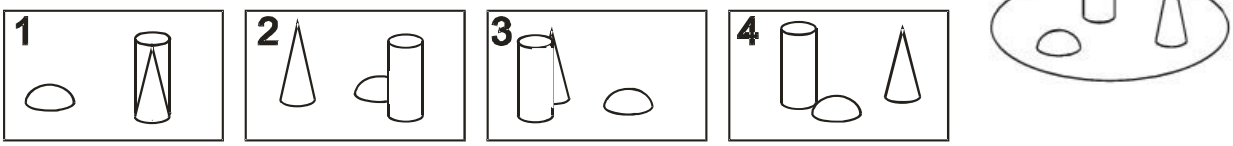
17) At a pirate school, each student had to sew a black and white flag. The condition was, that the black colour had to cover exactly three fifths of the flag. How many of the following flags fulfilled this condition?

A) None. B) One. C) Two. D) Three. E) Four.

18) Three friends lived on the same street: doctor, engineer and a musician. Their names are: Smith, Roberts and Farrel. The doctor has neither a sister, nor a brother. He is the youngest among his friends. Farrel is older than the engineer and is married to the sister of Smith. The names of a doctor, an engineer and a musician are the following:

A) Smith, Roberts, Farrel B) Farrel,Smith,Roberts C) Roberts,Smith,Farrel
D) Roberts,Farrel,Smith E) Smith,Farrel, Roberts

19) Betty walked once around the park, starting from the marked point in direction of the arrow. She made 4 photos. In which order did she make the photos?



A) 2431 B) 4213 C) 2143 D) 2134 E)3214

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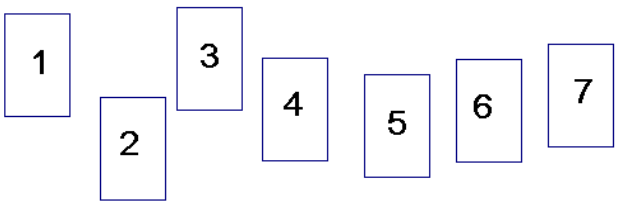
20) A box contains seven cards. The cards are numbered from 1 to 7. Mary picks, at random, three cards from the box and afterwards John picks two cards. Two cards are left in the box. Then Mary says to John: "I know that the sum of the numbers of your cards is even." The sum of the numbers on Mary´s cards is equal to



A) 10 B) 12 C) 6 D) 9 E) 15

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21) In the equality KAN + GA = ROO any letter stands for some digit (different letters for different digits, equal letters for equal digits). Find the value of the difference RN – KG.

A) 10 B) 11 C) 12 D) 21 E) 22
