

1 – 4 soruları aşağıdaki bilgilere göre cevaplayınız.

Answer questions 1 – 4 according to the information below.

4 torba ve 50 bilyeyle bir oyun oynanıyor. Oyuna başlamadan önce bilyeler torbalara istenildiği gibi dağıtılıyor.

Oyun sırasında bu bilyelerin yerleri torbalar arasından şu 2 kurallara göre değiştiriliyor.

- Birer al ekle kuralı (x kuralı): Herhangi 3 torbadan birer bilye alınıp bunlar 4. torbadaki bilyelere eklenir. Böylece 4. torbaya birer al ekle kuralı uygulanır.
- Üç al dağıt (y kuralı): Herhangi bir torbadan 3 bilye alınıp öteki torbaya birer tane dağıtılır. Böylece bilyelerin alındığı torbaya üç al dağıt kuralı uygulanmış olur.

A game is played with 4 bags and 50 balls. Before starting the game, the balls are distributed in bags as desired.

During the game, the places of these balls are changed among the bags according to the following 2 rules.

- Add one-take rule (x rule): Take one marble from any 3 bags and add them to the balls in the 4th bag. Thus, the rule of add one take to the 4th bag is applied.
- Distribute three items (y rule): Take 3 marbles from any bag and distribute one to the other bag. In this way, the three take and distribute rule will be applied to the bag from which the balls are taken.

1. Bilyeler torbalara aşağıdaki gibi I. torbada 11, IV. torbada 17 bilye olacak şekilde dağıtılıyor.

The balls are distributed in the bags as 11 in the 1st bag and 17 in the 4th bag as follows.



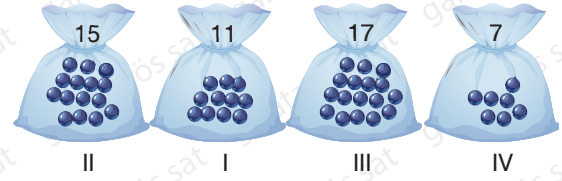
I. torbaya y kuralı uygulandığında II. ve III. torbadaki bilye sayılarının toplamı kaç olur?

When the rule of Y is applied to bag 1, what is the sum of the number of marbles in bag 2 and 3?

- A) 24 B) 25 C) 26 D) 27 E) 28

2. Bilyeler torbalara aşağıdaki gibi dağıtılıyor.

The balls are distributed in bags as follows.



Önce 1. torbaya y kuralı ondan sonra III. torbaya x kuralı uygulandığından son durumda torbalardaki bilye sayıları aşağıdakilerden hangisi gibi olur?

When Y rule is applied to the first bag, and then the X rule to the third bag,

In the last case, which of the following would be the number of balls in the bags?

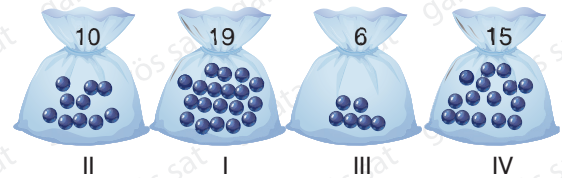


3. Aşağıdakilerden hangisinde verilen 2 kural art arda uygulandığında III. torbadaki bilye sayısı değişmez?

In which of the following two rules are applied consecutively, the number of marbles in the 3rd bag does not change?

- A) II. x, IV. y kuralı (rules)
B) I. x, II. y kuralı (rules)
C) IV. x, I. x kuralı (rules)
D) II. y, I. y kuralı (rules)
E) IV. y, II. y kuralı (rules)

- 4.



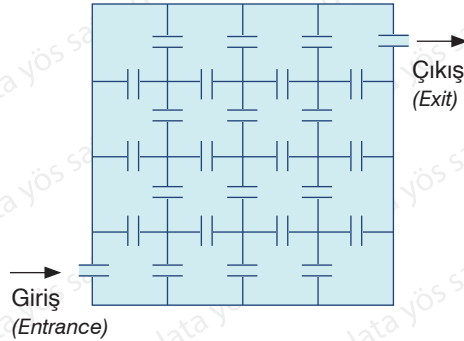
III. torbada 17 bilyeye ulaşmak isteniyor bunun için kurallar en az kaç kere uygulanır?

In the 3rd bag, 17 marbles are wanted to be reached, how many times are the rules applied for this?

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

5 – 7 soruları aşağıdaki bilgilere göre cevaplayınız.

Answer questions 5 - 7 according to the information below.



Yukarıda 16 odadan oluşan bir oyun kağıdı verilmiştir.

Bu oyunun kuralları aşağıdaki gibidir.

- I. Kural: Oyuncu giriş kapısından girip çıkış kapısından odaları dolaşarak çıkmalıdır.
- II. Kural: Oyuncu geçtiği her odada kaç puan varsa o puanı almaktadır fakat kullandığı her kapı için oyuncudan 4 puan düşülmektedir. (giriş- çıkış dahil)
- III. Kural: Her odadan en çok bir kez geçmelidir.

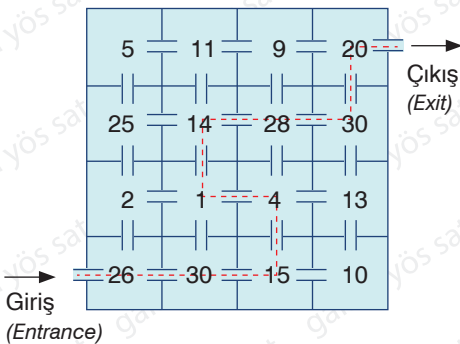
A playing card consisting of 16 rooms is given above. The rules of this game are as follows.

Rule I: The player must enter the entrance door and exit the exit door by walking around the rooms.

Rule II: The player gets how many points in each room he passes, but 4 points are deducted from the player for each door he uses. (including entrance and exit)

Rule III: It must pass through each room at most once.

5.

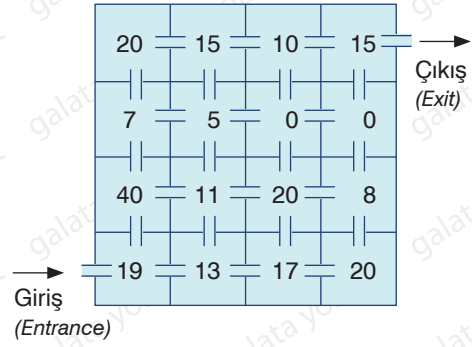


Bir oyuncu verilen oyun kağıdında kesikli çizgilerle belirtilen yolu takip ederse kaç puan toplar?

How many points does a player get if he follows the path indicated by dashed lines on the given playing card?

- A) 168 B) 154 C) 140 D) 128 E) 126

6.

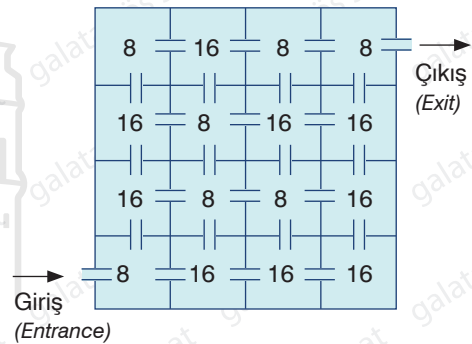


Bir oyuncu yukarıda verilen oyun kağıdında 20 puan bulunan odaların üçünden de geçerek en az kaç puan toplar?

How many points does a player get by going through all three of the rooms with 20 points on the playing card given above?

- A) 107 B) 113 C) 117 D) 121 E) 125

7.

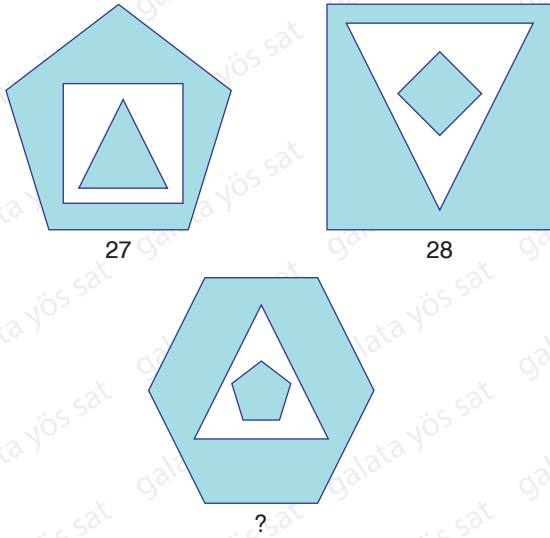


Bir oyuncu yukarıda verilen oyun kağıdında 7 odadan geçerek en fazla kaç puan toplayabilir?

How many points can a player collect by going through 7 rooms on the playing card given above?

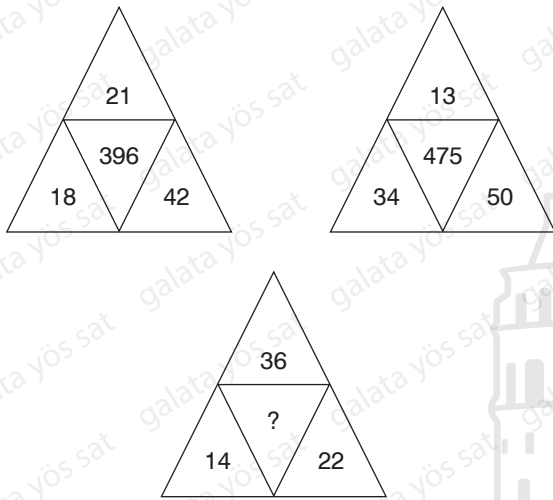
- A) 52 B) 64 C) 84 D) 96 E) 108

1.



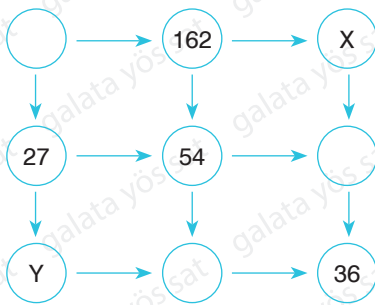
- A) 32 B) 36 C) 45 D) 48 E) 54

2.



- A) 825 B) 867 C) 954 D) 975 E) 986

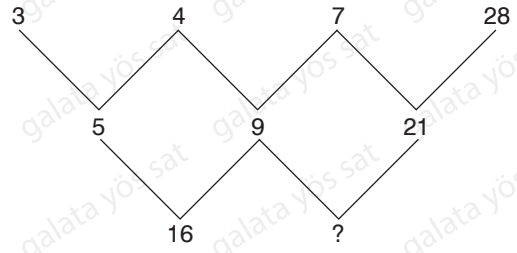
3.



$$\frac{X}{Y} = ?$$

- A) 6 B) 9 C) 18 D) 27 E) 36

4.



- A) 30 B) 40 C) 50 D) 60 E) 70

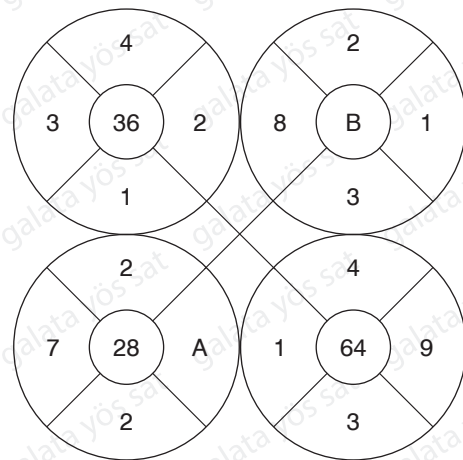
5. x, y, z, t ve a pozitif tam sayılardır.

x, y, z, t and a positive integers.

$$\begin{array}{cc} \div & \times \\ \downarrow & \downarrow \\ - \rightarrow & \begin{array}{|c|c|} \hline x & y \\ \hline \end{array} = a \\ + \rightarrow & \begin{array}{|c|c|} \hline z & t \\ \hline \end{array} = a \\ = & = \\ a & a \\ a = ? & \end{array}$$

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

6.



$$A + B = ?$$

- A) 48 B) 52 C) 65 D) 72 E) 80

1 - C

2 - C

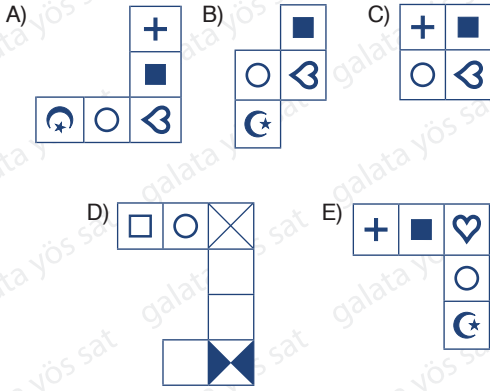
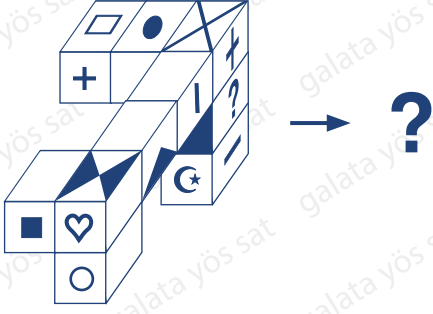
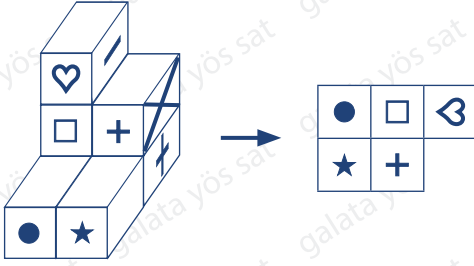
3 - E

4 - D

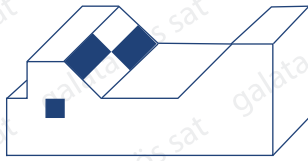
5 - B

6 - C

1.

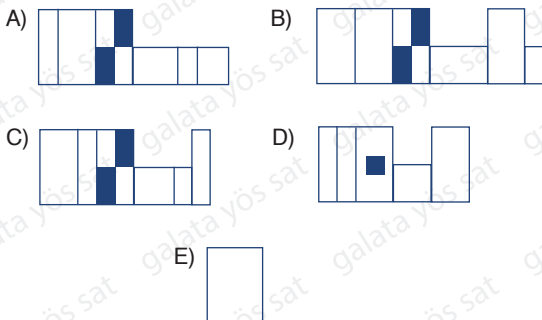


2.



Verilen şeklin üstten görünüşü nasıldır?

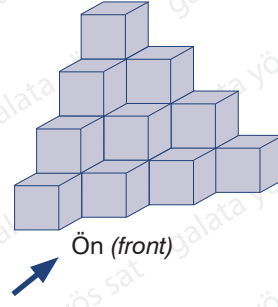
What is the top view of the given figure?



1 - A

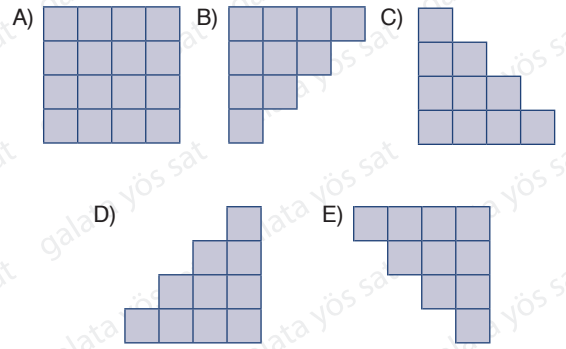
2 - A

3.



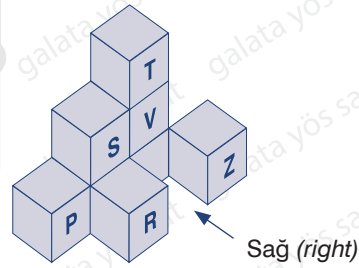
Şeklin önden görünüşü nasıldır?

What is the front view of the figure?



4 - 5 soruları aşağıdaki şekle göre cevaplayınız.

Answer questions 4 - 5 according to the figure below.



4. Şekilden harflerle belirtilen küplerden hangisi çıkarılırsa önden görünüşünün kağıda çizilmiş şekli değişmez?

Which of the cubes indicated by letters is removed from the figure that the front view does not change the shape drawn on paper?

A) R B) P C) S D) Z E) T

5. Bu şekile sol yandan bakıldığında kaç küp gözükür?

How many cubes are seen when looking at this figure from the left side?

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

3 - C

4 - A

5 - E