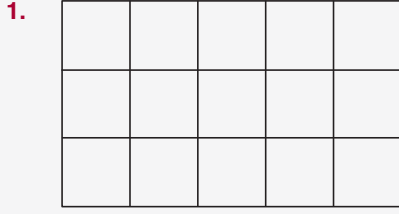


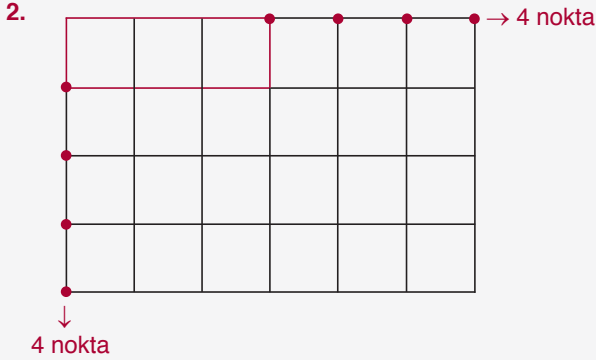
TEST - 1 ÇÖZÜMLER



3x5

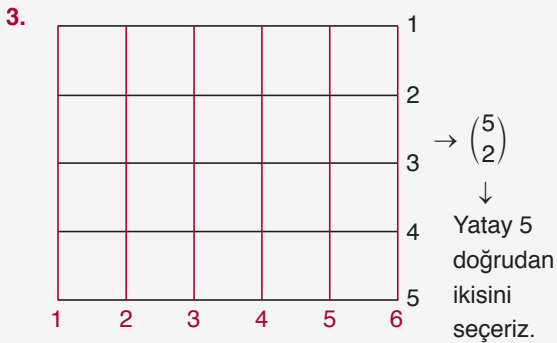
Kare sayısı = $\underline{3.5} + \underline{2.4} + \underline{1.3} = 26$
1'er azalarak gidiyor.

Cevap: E



⇒  → $4 \times 4 = 16$

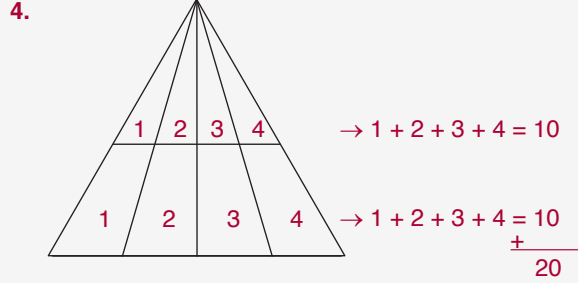
Cevap: D



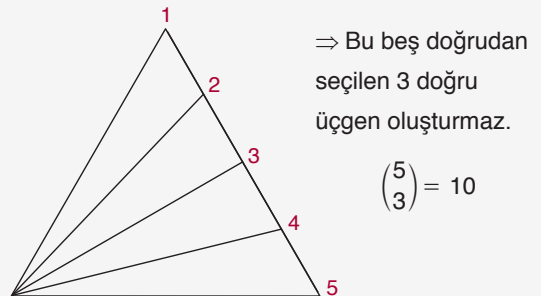
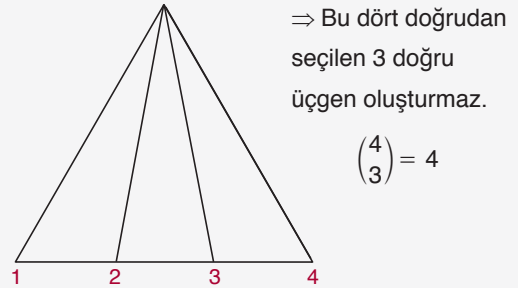
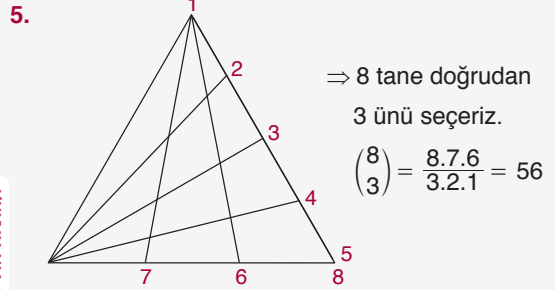
↓
 $\binom{6}{2}$ → Düşey 6 doğrudan ikisini seçeriz.

⇒ $\binom{5}{2} \cdot \binom{6}{2} = 10 \cdot 15 = 150$

Cevap: A



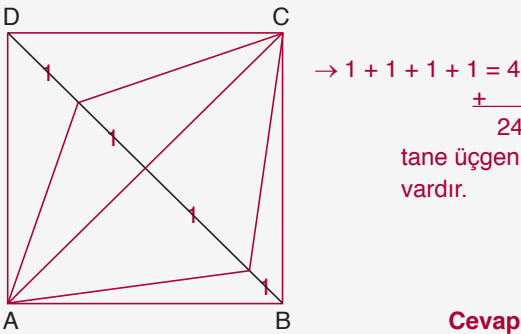
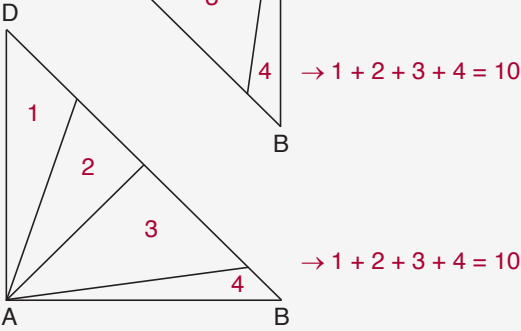
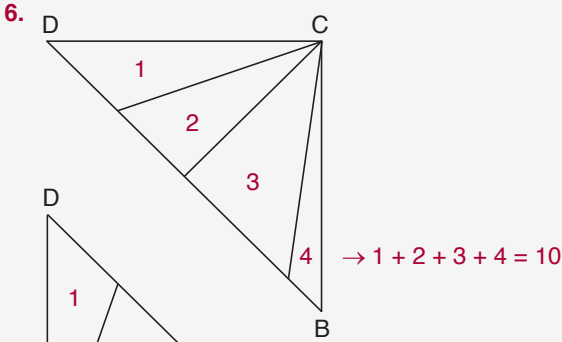
Cevap: D

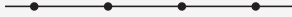


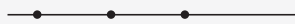
O halde $\binom{8}{3} - \binom{4}{3} - \binom{5}{3} = 56 - 4 - 10 = 42$

Cevap: E

TEST - 1 ÇÖZÜMLER



7. 



Koşulsuz 7 noktadan seçilebilecek 3 nokta sayısı

$$\binom{7}{3} = \frac{7.6.5}{3.2.1} = 35$$



4 noktadan seçilen 3 nokta üçgen oluşturmaz.

$$\binom{4}{3} = 4$$

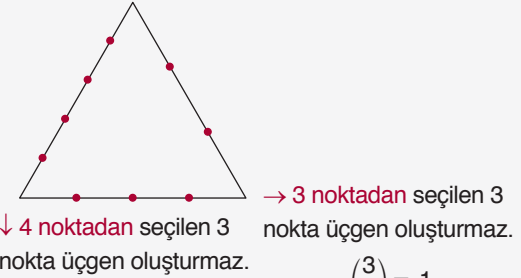
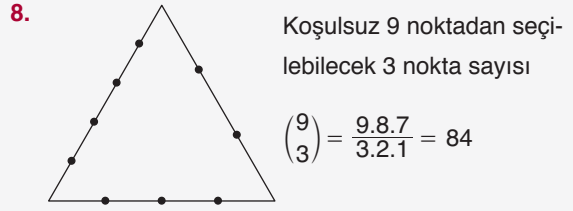


3 noktadan seçilen 3 nokta üçgen oluşturmaz.

$$\binom{3}{3} = 1$$

O halde $35 - 4 - 1 = 30$ tane üçgen çizilebilir.

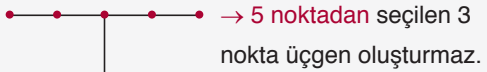
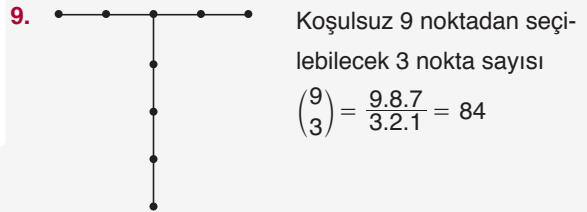
Cevap: E



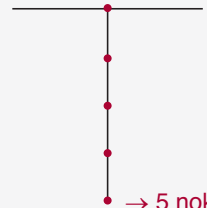
$$\binom{4}{3} = 4$$

O halde $84 - 4 - 1 = 79$ farklı üçgen çizilebilir.

Cevap: D



$$\binom{5}{3} = 10$$



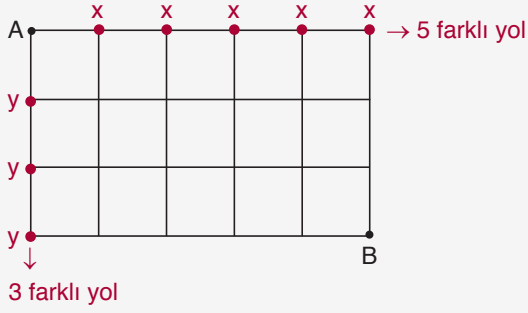
$$\binom{5}{3} = 10$$

O halde $84 - 10 - 10 = 64$ üçgen çizilebilir.

Cevap: D

TEST - 1 ÇÖZÜMLER

10.



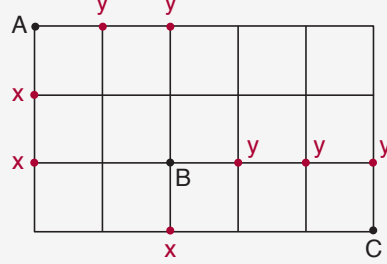
(xxxxx) (yyy) farklı sıralanışların sayısı gidilebilecek toplam yol sayısını verir.

$$\Rightarrow \frac{8!}{5!.3!} = \frac{8 \cdot 7 \cdot 6 \cdot 5!}{5! \cdot 3!} = \frac{8 \cdot 7 \cdot 6}{6} = 56 \text{ farklı yol}$$

5 tane x 3 tane y
tekrar etmiş tekrar etmiş

Cevap: C

12.



A → B

xxyy

$$\frac{4!}{2!.2!} = 6$$

O halde A → B → C

$$6 \cdot 4 = 24$$

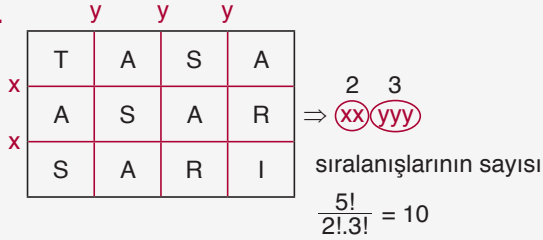
B → C

xyyy

$$\frac{4!}{3!} = 4$$

Cevap: C

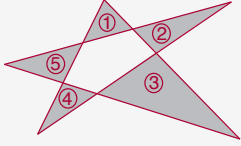
11.



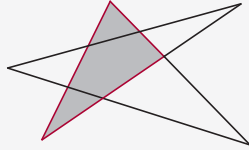
Cevap: B

TEST - 2 ÇÖZÜMLER

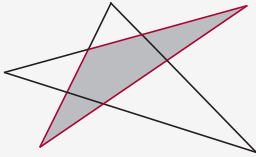
1.



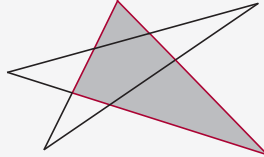
→ 5 tane



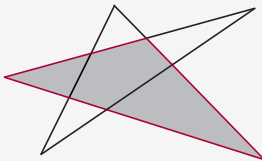
→ 1 tane



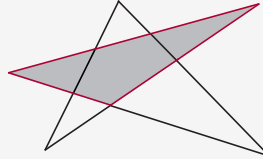
→ 1 tane



→ 1 tane



→ 1 tane

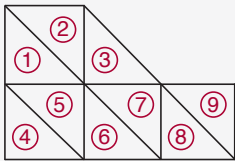


→ 1 tane

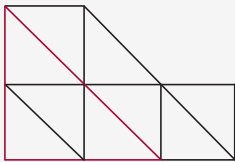
Toplam 10 tane

Cevap: D

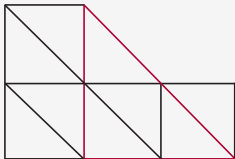
2.



→ 9 tane



→ 1 tane



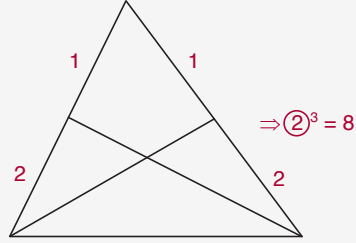
→ 1 tane

+ _____

11 tane

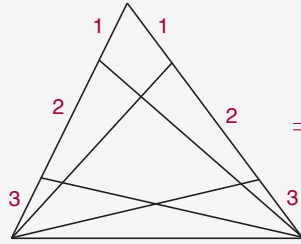
Cevap: E

3.



$$\Rightarrow 2^3 = 8$$

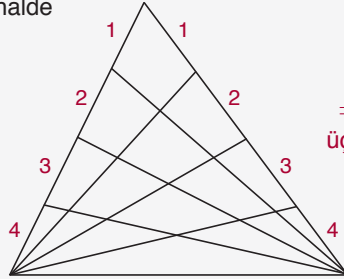
Kenarlar ikişer parça



$$\Rightarrow 3^3 = 27$$

Kenarlar üçer parça

O halde



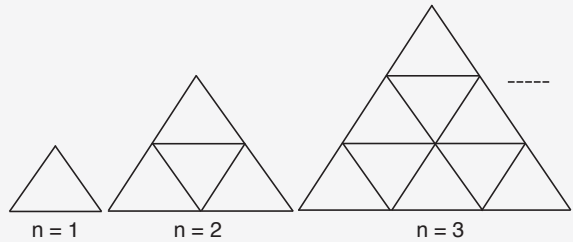
$$\Rightarrow 4^3 = 64$$

üçgen vardır.

Kenarlar dörder parça

Cevap: D

4.



$$\Rightarrow \begin{cases} \frac{1}{8} n \cdot (n+2) \cdot (n+1), & n \text{ çift ise} \\ \frac{1}{8} (n \cdot (n+2) \cdot (2n+1) - 1), & n \text{ tek ise} \end{cases}$$

O halde; $n = 3$ tek

$$\frac{1}{8} (3 \cdot 5 \cdot 7 - 1) = \frac{1}{8} \cdot 104 = 13 \text{ tane üçgen vardır.}$$

Cevap: C

TEST - 2 ÇÖZÜMLER

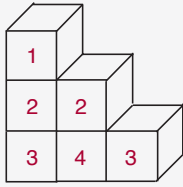
5. $n \times n \times n$ birim küpten oluşan bir küpte

$$\left[\frac{n \cdot (n + 1)}{2} \right]^2 \text{ farklı küp vardır.}$$

O halde $n = 4$ için $\left[\frac{4 \cdot 5}{2} \right]^2 = 100$ farklı küp vardır.

Cevap: E

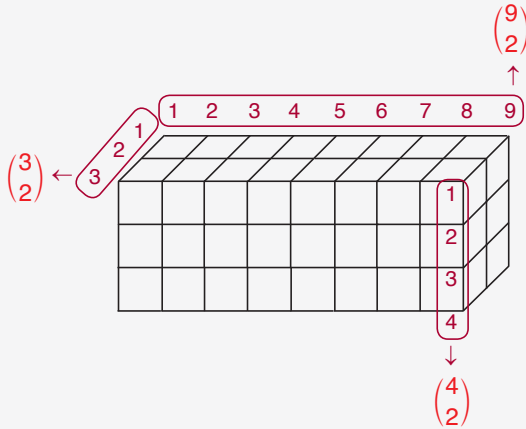
6.



$$\Rightarrow 1 + 2 + 2 + 3 + 4 + 3 = 15 \text{ tane}$$

Cevap: C

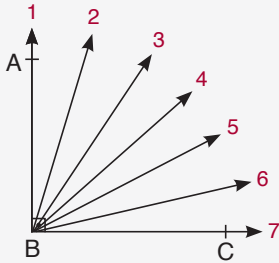
7.



$$\Rightarrow \binom{3}{2} \cdot \binom{4}{2} \cdot \binom{9}{2} = 3 \cdot 6 \cdot 36 = 648 \text{ tane}$$

Cevap: E

8.

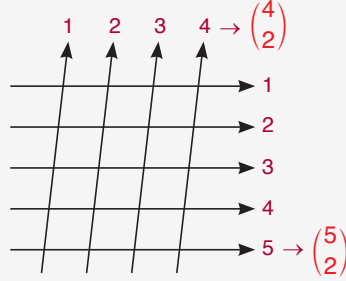


$$\Rightarrow \binom{7}{2} - 1 = \frac{7 \cdot 6}{2 \cdot 1} - 1 = 21 - 1 = 20$$

$$m(\widehat{ABC}) = 90^\circ$$

Cevap: B

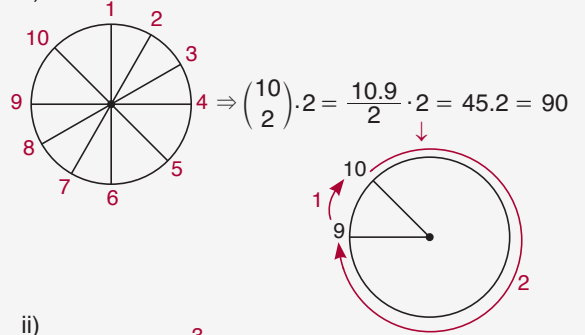
9.



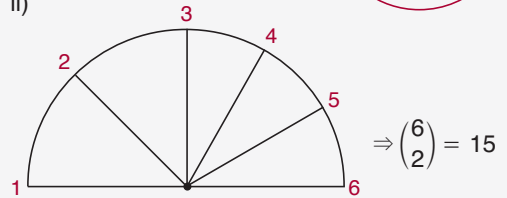
$$\text{O halde } \binom{4}{2} \cdot \binom{5}{2} = 6 \cdot 10 = 60$$

Cevap: D

10. i)



ii)

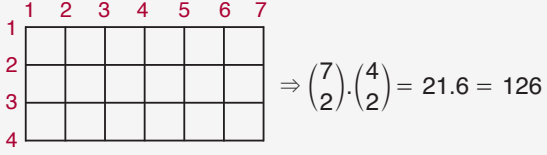


O halde $90 + 15 = 105$ daire dilimi vardır.

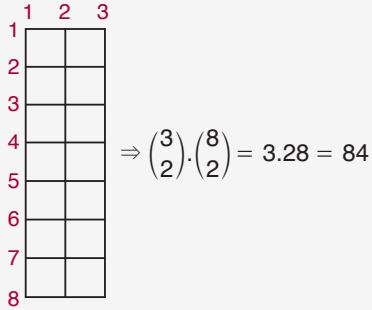
Cevap: D

TEST - 2 ÇÖZÜMLER

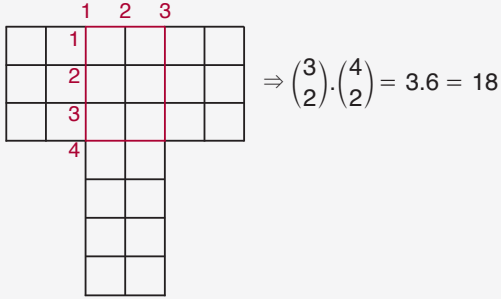
11. i)



ii)



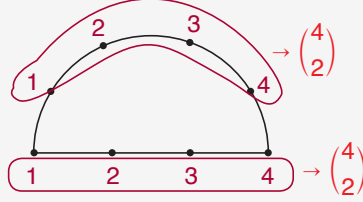
iii)



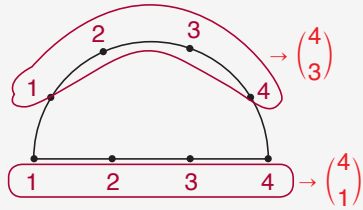
O halde $126 + 84 - 18 = 210 - 18 = 192$ dikdörtgen vardır.

Cevap: C

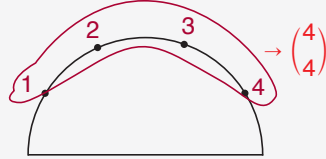
12.



$$i) \binom{4}{2} \cdot \binom{4}{2} = 6 \cdot 6 = 36$$



$$ii) \binom{4}{3} \cdot \binom{4}{1} = 4 \cdot 4 = 16$$



$$iii) \binom{4}{4} = 1$$

O halde;

$36 + 16 + 1 = 53$ dörtgen vardır.

Cevap: C