~Yos Lovers~

HARRAN ÜNİVERSİTESİ

ULUSLARARSI ÖĞRENCİ SEÇME SINAVI

THE ENTRANCE EXAMINATION FOR FOREIGN STUDENTS

HRÜ YÖS 2018-1

MATEMATİK VE TEMEL ÖĞRENME BECERİLERİ TESTİ
THE MATHEMATICS & BASİC LEARNİNG SKİLLS TEST
اختبار الرياضيات ومهارات التعليم الأساسية

17 Mart 2018

A

ADAYIN / APPLICANT'S

ADI / NAME الاسم:	
SOYAD / SURNAME/اللقب	
ADAY NUMARASI / CANDIDATE NUMBER/رقم الطالب:	
SINAV SALON NO / EXAM ROOM NUMBER / رقم قاعة الاختبار:	

DİKKAT EDİLMESİ GEREKLİ HUSUSLAR

1. **Bu soru kitapçığı 80 sorudan oluşmaktadır ve verilen cevaplama süresi 120 dakikadır.**
2. **İlk 60 dakika ve son 10 dakika sınavı bitirilmiş olsa bile sınav salonundan çıkmak yasaktır.**
3. **Soru kitapçık türünün cevap kağıdına kodlanması sınav değerlendirmesi için gereklidir.**
4. **Test kitapçığındaki her sorunun yalnızca bir doğru cevabı vardır.**

IMPORTANT NOTES FOR THE EXAM TAKERS

1. **This test has 80 questions and duration of the exam is 120 minutes.**
2. **It is not allowed to leave the exam room in the first 60 minutes and the last 10 minutes even if the exam has been completed**
3. **The coding of the booklet type is required for the examination marking.**
4. **Every question in the test book has only one correct answer.**

ملاحظات يجب الانتباه لها

1. تحتوي ورقة الأسئلة على (80) سؤالاً، والزمن المخصص للإجابة عنها (120) دقيقة.
2. يمنع الخروج من قاعة الامتحان أول (60) دقيقة من مدّة الامتحان، آخر (10) دقائق، حتى لو أتم الطالب الإجابة عن الأسئلة كلها.
3. تظليل رمز نموذج الأسئلة (A-B) ضروري من أجل عملية التصحيح.
4. كل سؤال يحتمل إجابة صحيحة واحدة فقط.

ملاحظة: جامعة حرّان لم تقم بنشر هذا الكتيّب بل إنّما قام بعض الطلاب بتسريبها ونشرها لكي يستفيد منها الطلاب من بعدهم

1. 5 saatte 504 km yol alan bir aracın bir dakikada ortalama hızı kaç metredir?

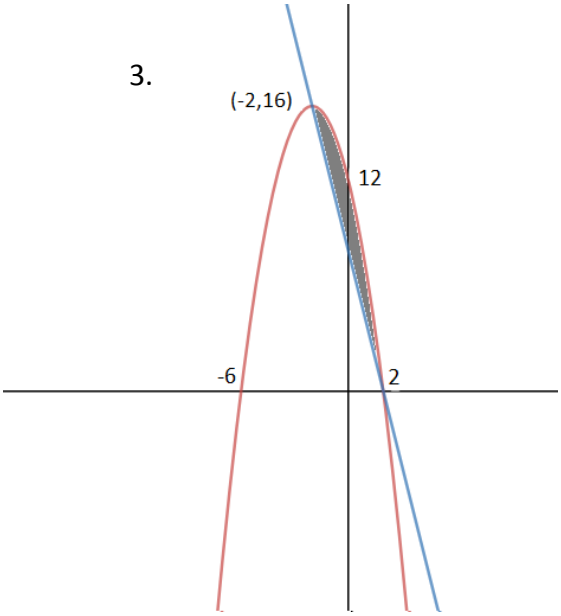
A)2560 B)1008 C)1280 D)1680 E)840

2. f:[0,4] f(x)= |x-1|+|x-2|+|x-3|

Fonksiyonunun x ekseni ile sınırladığı bölgenin alanı kaç br^2?

A)14 B)10 C)8 D)12 E)6

3.



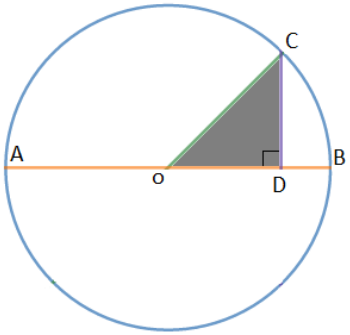
taralı alan kaç br^2?

A)$\frac{16}{3}$ B)$\frac{8}{3}$ C)$\frac{32}{3}$ D)16 E)32

4. $\int_1^e \frac{lnx}{x^2}dx = ?$

A)$\frac{-2-e}{e}$ B)$\frac{-2}{e}$ C)$\frac{-2+e}{e}$ D)$\frac{-e}{2}$ E)$\frac{e+2}{e}$

5.



O merkezli çemberde AB çapın uzunluğu 20 br, Buna göre OCD dik üçgeninin alabileceği en büyük alan kaç birim karedir?

A)30 B)$\frac{25\pi}{2}$ C)25π

D)$\frac{25\pi}{4}$ E)25

6.

$$\int_{-2}^{3}(f(x)-x^2)dx = \frac{10}{3}$$

buna göre:

$$\int_{-2}^{3}(\pi f(x)+\pi^2\sin(3\pi x))dx = ?$$

A)10π B)15π C)20π

D)25π E) $\frac{47\pi}{3}$

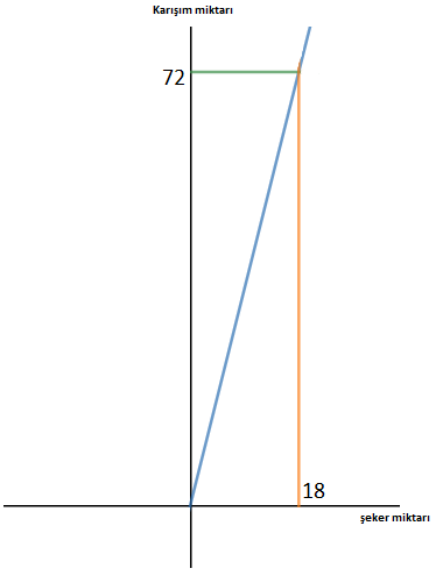
7. Bir sırada ALİ baştan 21.nci , VELİ sondan 35.nci, Veli ile Ali arasına 13 kişi var, Veli sırada Aliden önce (önünde) olduğuna göre sırada kaç kişi vardır?

A)43 B)41 C)38 D)35 E)32

8. $\binom{10}{3}+\binom{10}{4}+\binom{10}{5}+\binom{10}{6}+\binom{10}{7}$ =?

A)1024 B)1012 C)1002 D)912 E)1136

9.



yukarıdaki şekilde bir şeker-su karışımında şeker miktarını göstermektedir.

buna göre bu karışımın yüzde kaçı şekerdir?

A)50 B)40 C)30 D)25 E)18

10. f(x)=9^x g(x)=$\frac{3}{2}-x$

(fog)(1)=?

A)1 B)27 C)3 D)9 E)81

11. A= {1,2,3,4} kümesinin elemanları kullanarak oluşturacak rakamları farklı üç basamaklı farklı tüm sayıların toplamı kaçtır ?

A)6660 B)1440 C) 13320

D)26640 E)133320

12.

$$\int_{\frac{\pi}{6}}^{\frac{\pi}{4}} sin^2 x cosx dx = ?$$

A)$\frac{\sqrt{2}-1}{24}$ B) $\frac{2\sqrt{2}-1}{24}$ C) $\frac{2\sqrt{2}-1}{12}$

D) $\frac{2\sqrt{2}-1}{6}$ E)) $\frac{2\sqrt{2}-1}{8}$

13. $A=\begin{bmatrix}1 & 2\\ 3 & 4\end{bmatrix}$ $B=\begin{bmatrix}-4 & -3\\ -2 & -1\end{bmatrix}$

$A^2+B^2=?$

$A)\begin{bmatrix}25 & 29\\ 29 & 25\end{bmatrix}$ $B)\begin{bmatrix}-20 & -16\\ -16 & -20\end{bmatrix}$ $C)\begin{bmatrix}29 & 25\\ 25 & 29\end{bmatrix}$

$D)\begin{bmatrix}7 & 15\\ 12 & 40\end{bmatrix}$ $E)\begin{bmatrix}7 & 12\\ 15 & 40\end{bmatrix}$

14. $x+\frac{1}{x}=\sqrt{29}$ Buna göre x kaçtır ?

A) $\frac{\sqrt{29}+1}{2}$ B) $\frac{\sqrt{29}+2}{2}$ C) $\frac{\sqrt{29}+5}{2}$

D) $\frac{\sqrt{29}+4}{2}$ E) $\frac{\sqrt{29}+3}{2}$

15. $1,\overline{7} = x \qquad \sqrt{x+1} = ?$

A) $\frac{8}{9}$ B) $\frac{5}{9}$ C) $1,\overline{2}$ D) $1,\overline{6}$ E)3

16. $\log_3 4 = a \qquad \log_{16} 36 = ?$

A) $\frac{a+1}{2}$ B) $\frac{a+1}{2a}$ C) $\frac{a+2}{2a}$ D) $\frac{a-2}{2a}$ E) $\frac{2a}{2+a}$

17. $\int_6^{12} \frac{dx}{ln3 \cdot (x-3)} = ?$

A) $\frac{ln3}{ln4}$ B) $\frac{1}{ln3}$ C)1 D)2 E)ln3+ln4

18. $a\Delta b = \begin{cases} 2a-b & a > b \\ -2ab & a \leq b \end{cases}$

$3\Delta(\,1\,\Delta - 3) = ?$

A)3 B)-3 C)15 D)30 E)-30

19. cos(arcsinx) = ?

A) cosx B) x C) $\frac{1}{\sqrt{1-x^2}}$

D)sinx E) $\sqrt{1-x^2}$

20. 40 sayısını, çeyreğe bölüp , 10 a eklendiğinde sonuç kaç olur?

A)20 B)30 C)130 D)150 E)170

21. $\frac{\sqrt{0.0025}+\sqrt{0.25}}{\sqrt{1.21}-\sqrt{0.0121}} = ?$

A) $\frac{9}{5}$ B) $\frac{5}{11}$ C) $\frac{5}{9}$ D) $\frac{9}{11}$ E) $\frac{11}{9}$

22. $\lim_{x\to 0} \frac{e^{2x}-(x+1)^2}{x^2} = ?$

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

23. f(x)= $\frac{4x+3}{4}$ g(x)=$\frac{3x-5}{4}$

(fog)(x)=7 x=?

A)10 B)4 C)3 D)2 E)1

24. $\frac{sin100}{cos10}$ =?

A)0 B)1 C)2 D) $\frac{1}{2}$ E) $\frac{1}{3}$

25. $\frac{sin15cos35+sin35cos15}{cos15cos25-sin25sin15}$=?

A)sin15 B)cos35 C)sin35

D)cos15 E)1

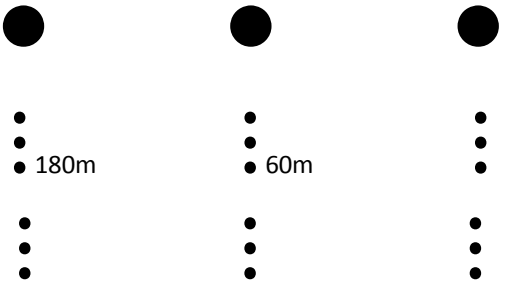
26. $a, b \in \mathbb{Z}^+$ 3a+4b=50

$\sum a$ =?

A)20 B)24 C)28 D)30 E)32

27-28 Soruları aşağıdaki bilgilere göre cevaplayınız.

bir top yere atıldığında atıldığı yükseklikten $\frac{1}{3}$ ü kadar zıplanıyor, ve tekrar zıpladığında geçen seferki zıpladığı yüksekliğin $\frac{1}{3}$ kadar devam yükseliyor ve böyle devam ediyor.



ilk başta 1. sefer 2. sefer

27. bu top 5.nci seferde kaç metre yükseldi?

A)20 B)$\frac{20}{3}$ C) $\frac{20}{9}$ D) $\frac{20}{27}$ E) $\frac{20}{81}$

28. bu top 6.nci seferde yükseldiği yükseklik ile 7.nci adımda yükseldiği yüksek arasındaki fark kaçtır?

A) $\frac{20}{81}$ B) $\frac{20}{243}$ C) $\frac{40}{27}$ D) $\frac{40}{81}$ E) $\frac{40}{243}$

29. $\sqrt{x}-\frac{1}{\sqrt{x}-\frac{1}{\sqrt{x}-\frac{1}{\cdots}}}$ = a

$\sqrt{x-4}$ =?

A)a^2-1 B)$\frac{a^2-1}{2}$ C) $a+\frac{1}{a}$

D)$\frac{a^2+1}{a}$ E)$a-\frac{1}{a}$

30. $(1+\frac{1}{2})\left(1+\frac{1}{3}\right)\ldots\ldots(1+\frac{1}{29})$ =?

A)30 B)25 C)20 D)15 E)10

31. bir torbada 7 lacivert ve 8 sarı top vardır.

bu torbadan rastgele çekilen 2 top aynı renkten çıkma ihtimali?

A)$\frac{1}{2}$ B)$\frac{1}{3}$ C)$\frac{4}{15}$ D)$\frac{7}{15}$ E)$\frac{8}{15}$

32. a,b ardışık tam sayılar

$a^2=b^2+c^2$

c=?

A=$\sqrt{2a-1}$ $B)a-1$ $C)\sqrt{a^2-1}$

$D)\sqrt{1-a^2}$ $E)\sqrt{1-2a}$

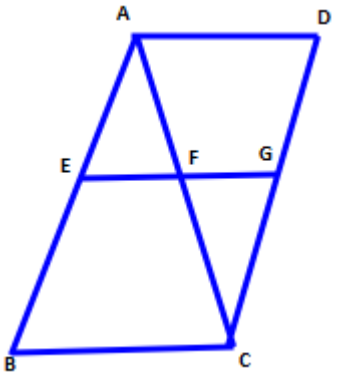
33. $\frac{\sqrt{-2}\sqrt{-3}\sqrt{-6}}{2-\sqrt{-3}}$ = ?

A)$\frac{6(2i-\sqrt{3})}{7}$ B)$\frac{6(-2+\sqrt{3}i)}{7}$

C)$\frac{6(\sqrt{3}-2i)}{7}$ D)$\frac{6(2-\sqrt{3}i)}{7}$

E) $\frac{6(\sqrt{3}+2i)}{7}$

34.



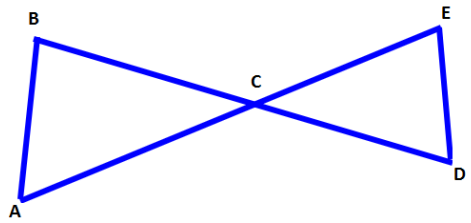
. $BC \parallel AD \parallel EG$, $EF=8$

EG=14 , BC=24 , GC=10

lADl*lGDl=?

A)45 B)90 C)120 D)180 E)240

35.



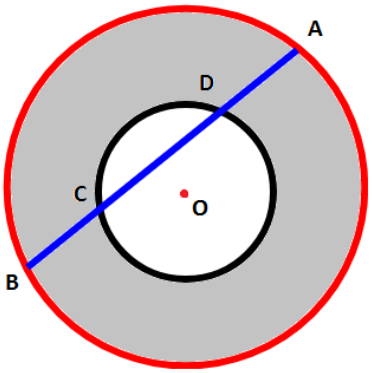
$\widehat{BAC}=\widehat{CDE}$, |AC|=15

|CE|=7 , |DE|=5 , |CD|=6

|AB|+|BC|=?

A) $\frac{77}{15}$ B) $\frac{33}{2}$ C) $\frac{55}{2}$ D) 30 E)35

36.



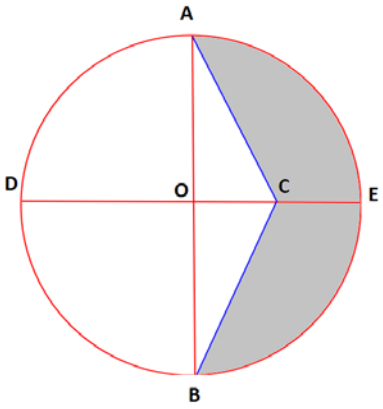
Yukarıdaki aynı merkezli iki çemberde

|AB|=26 , |CD|=10

taralı bölge = ? br^2

A)144π B)72π C)36π D)18π E)10π

37.



Yukarıdaki O merkezli çemberde |OC|⊥|AB|

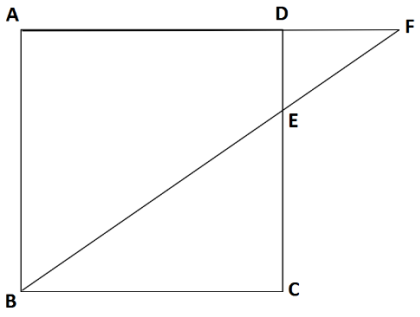
|OC|=|CE| , |AC|=$4\sqrt{5}$

olduğuna göre taralı bölgenin alanı kaç br^2?

A)32(π-2) B)16(π-1) C)32(π-1)

D)32π-8$\sqrt{5}$ E)16π-4$\sqrt{3}$

38.

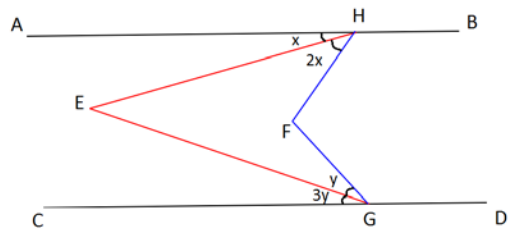


ABCD Kare, |DE|=2 , |EC|=6

|DF|=?

A)8 B)24 C)$\frac{8}{3}$ D)2 E)3

39.



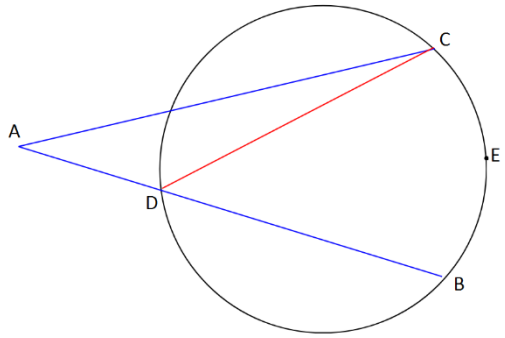
|AB| || |CD|

$\widehat{HFG} = 125°$ $\widehat{HEG} = 75$

x+y=?

A)35 B)40 C)30 D)20 E)45

40.



Yukarıdaki çemberde $\widehat{CEB} = 140$

$\widehat{ACD} = 20$

$\widehat{CAB} = ?$

A)20 B)30 C)40 D)50 E)60

1. $A\overrightarrow{BC}D = ACBD$, $A\overleftarrow{BC}D = DBCA$

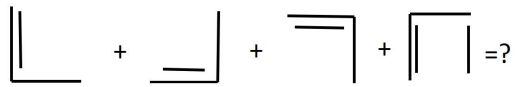
$A\overleftrightarrow{BC}D = BADC$

$7\overrightarrow{A4}D + 2\overleftarrow{DA}7 - A\overleftrightarrow{54}D = 9351$

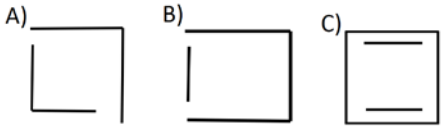
A+D=?

A)8 B)7 C)6 D)5 E)4

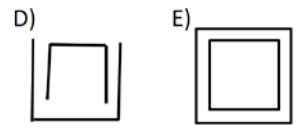
2



A) B) C)



D) E)



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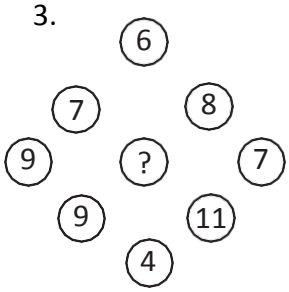


soru işareti yerine aşağıdakilerden hangisi gelmelidir?

A)4 B)5 C)6 D)7 E)8

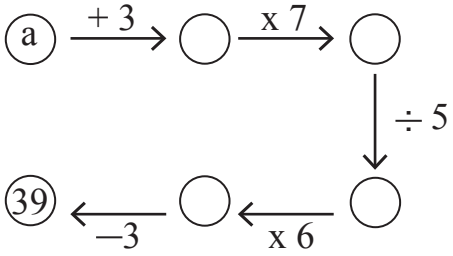
4. $x \geq 2$ olmak üzere f(x+1)=$\frac{2f(x)+1}{2}$

ve f(1)=4

f(33)=?

A)36 B)32 C)28 D)24 E)20

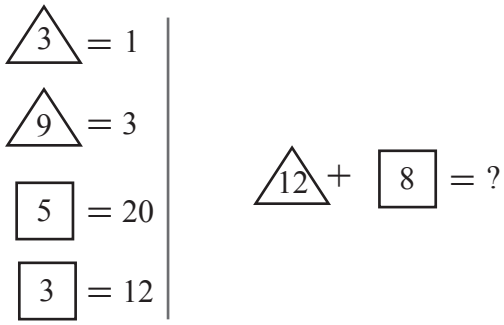
5.



a =?

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

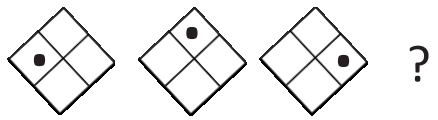
6.

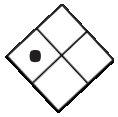


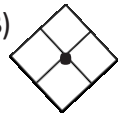
A) 36 B) 20 C) 35

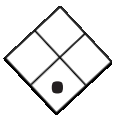
D) 27 E) 18

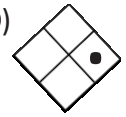
7.

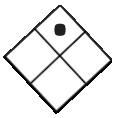


A) 

B) 

C) 

D) 

E) 

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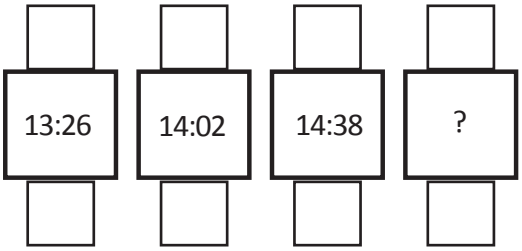


A) 14:14 B) 14:02 C) 15:02
D) 15:14 E)15:12

9.

x=4 için y=15 ve z=9
x=6 için y=35 ve z=13 | x=7

y-z=?

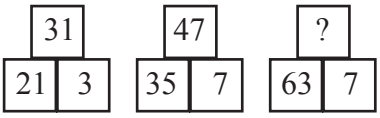
A) 43 B)38 C)35 D)51 E)33

10.

1○2=5
1○5=26
2○4=18
3○5=?

A)28 B)26 C)22 D)20 E)18

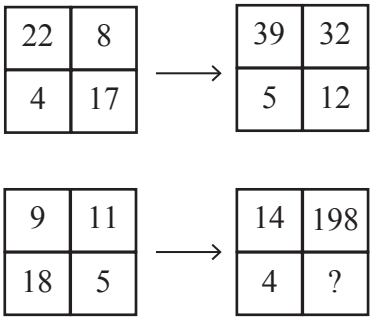
11.



Soru işareti (?) yerine aşağıdakilerden hangi-si gelmelidir?

A) 70 **B)** 63 **C)** 67 **D)** 73 **E)** 79

12.



A)30 B)90 C)81 D)54 E)29

13.

A)27 B)39 C)18 D)29 E)42

14.

+	a	b	c
a		16	
b			
c			

x	a	b
a		
b		49

a=?

A)7 B)8 C)9 D)19 E)-33

15. $\frac{x+3}{y} = \frac{9}{4}$ x – y = $\frac{3}{4}$ Buna göre y=?

A)1 B)2 C)3 D)4 E)5

16. $\frac{a+3b}{4b-a} = \frac{5}{2}$ $\frac{5ab-4a^2}{4ab+5b^2}$=?

A) $\frac{6}{13}$ B)$\frac{7}{4}$ C)$\frac{2}{3}$ D)$-\frac{2}{3}$ E)$-\frac{6}{13}$

17. 2325 → 17

1947 → 811

3467 → ?

A)713 B)1213 C)1242 D)142 E)113

18.

6	11	8	13	10	A	B

A - B =?

A)27 B)-5 C)5 D)3 E)-3

19-20 soruları aşağıdaki bilgilere göre cevaplayınız

*	a	b	c	d	e
a	d	a	e	b	c
b	e	b	a	c	d
c	a	c	b	d	e
d	b	d	c	e	a
e	c	e	d	a	b

a * c = e
d * d = e

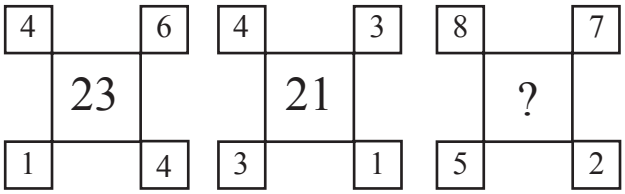
19. a * d = ?

A)a B)b C)c D)d E)e

20. a * (x * e) = c
x = ?

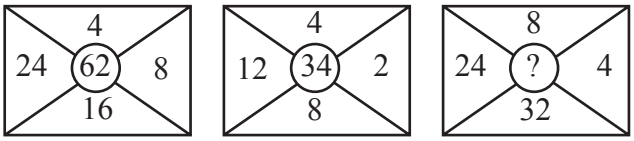
A)b B)c C)d D)e E)a

21.



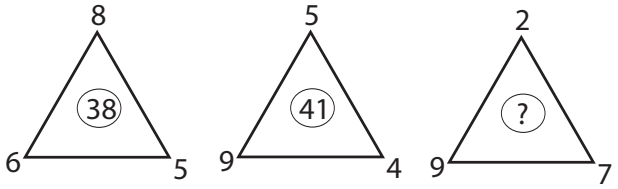
A)36 B)63 C)64 D)53 E)35

22.



A)66 B)38 C)83 D)28 E)65

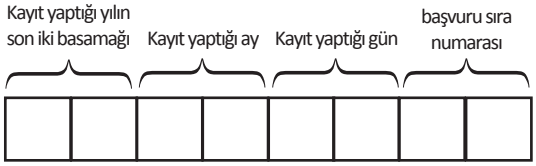
23.



A)83 B)75 C)55 D)65 E)44

24 - 25 - 26 soruları aşağıdaki bilgilere göre cevaplayınız

Harran üniversitesinin sınavına katılan adayların adaynumarası aşağıdaki formülle hesaplanır:



Aday numarası 8 haneden oluşur.

örnek: 18 Eylül 2016 tarihinde kayıt yapanbir adayın 45.nci sırada kaldı, ve aday numarası aşağıdaki gibidir:

1	6	0	9	1	8	4	5

24. 50 kontenjanlı bir sınava kayıt yaptırmış bir kişinin aday numarası:

1	8	1	0	3	1	4	5

bu kişi kayıt gününden bir gün önce kayıt yaptığını farkettiği için sonraki gün yeniden kayıt yapıyor ve son sırada yer alıyor.
buna göre bu öğrencinin yeni aday numarası aşağıdakilerden hangisidir?

A)	1	7	1	1	0	1	5	0
B)	1	8	1	1	0	1	5	0
C)	1	7	1	0	3	1	4	5
D)	1	8	1	1	1	0	5	0
E)	1	8	1	1	1	0	4	5

25. aday numarası:

1	7	1	0	1	0	3	1

olan öğrenci hangi tarihte kayıt yapmıştır?

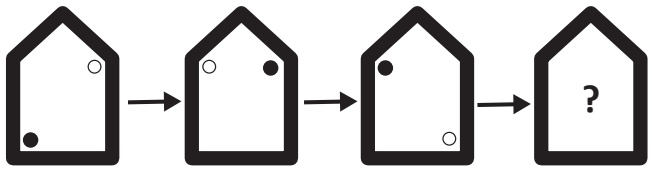
A) 01/01/2017 B) 10/10/2017 C)01/01/2018

D)10/10/2018 E)31/01/2017

26. 27 Eylül 2018 'de başvuru yapan ve 5.nci sırada yer alan öğrencinin aday numarası kaçtır?

A)	1	8	0	9	2	7	0	5
B)	1	8	2	7	0	9	0	5
C)	1	8	0	9	2	7	5	0
D)	1	7	0	9	2	7	0	5
E)	1	7	9	0	7	2	5	0

27.



A) 

B) 

C) 

D) 

E) 

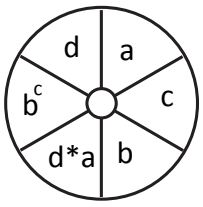
28. ABCDEABCDEABCDEAB..... şeklinde devam eden dizinin 152.nci basamağı aşağıdakilerden hangisidir?

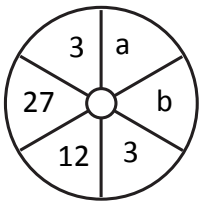
A)B B)A C)D D)E E)C

29. $\frac{4}{9} < x < \frac{5}{8}$ olduğuna göre x aşağıdakilerden hangisidir ?

A)$\frac{8}{9}$ B) $\frac{1}{2}$ C) $\frac{1}{3}$ D)$\frac{2}{3}$ E)$\frac{1}{4}$

30.



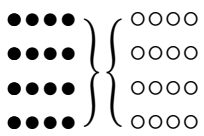


a+b=?

A)6 B)7 C)5 D)4 E)9

31. ve 34. sorularda, I. gruptaki kümelerin şekilleri birer rakamla gösterilerek II. gruptaki sayılar elde edilmiştir. Soru işaretiyle belirtilen kümenin hangi sayıyla gösterildiğini bulunuz.

31. I. II.



●●●● = ?

A) ○○○○

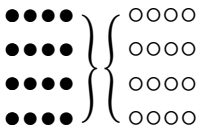
B) ○○○○

C) ○○○○

D) ○○○○

E) ○○○○

32. I. II.



●●●● = ?

A) ○○○○

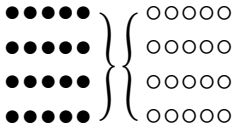
B) ○○○○

C) ○○○○

D) ○○○○

E) ○○○○

33. I. II.



●●●●● = ?

A) ○○○○○

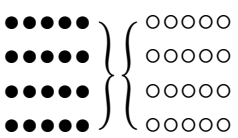
B) ○○○○○

C) ○○○○○

D) ○○○○○

E) ○○○○○

34. I. II.



●●●●● = ?

A) ○○○○○

B) ○○○○○

C) ○○○○○

D) ○○○○○

E) ○○○○○

35. ●●●●●●●●● = ○○○○○○○○○

●●●●●●●●● = ?

A) ○○○○○○○○○

B) ○○○○○○○○○

C) ○○○○○○○○○

D) ○○○○○○○○○

E) ○○○○○○○○○

36. ●●●●●●●●● = ○○○○○○○○○

●●●●●●●●● = ?

A) ○○○○○○○○○

B) ○○○○○○○○○

C) ○○○○○○○○○

D) ○○○○○○○○○

E) ○○○○○○○○○

37. Şanlıurfa = ○○○○○○○○○

Harran = ?

A) ○○○○○○

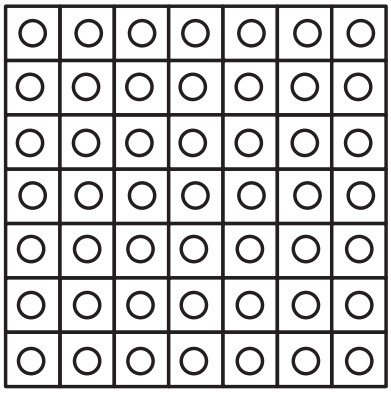
B) ○○○○○○

C) ○○○○○○

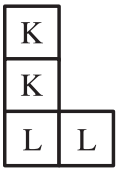
D) ○○○○○○

E) ○○○○○○

38 - 40 Soruları aşağıdaki tabloya göre cevaplayınız



38.



K= ○ L= ○ M = ?

A) ○

B) ○

C) ○

D) ○

E) ○

39.

P = ?

A) ○

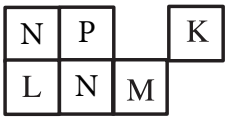
B) ○

C) ○

D) ○

E) ○

40.



N = ?

A) ○

B) ○

C) ○

D) ○

E) ○

Test Bitti
Cevaplarınızı kontrol ediniz

~Yos Lovers~

HRÖYÖS 2018

CEVEP ANAHTARI

ANSWER KEY

مفتاح الأجوبة

1. D	21. C	41. B	61. D
2. A	22. B	42. E	62. B
3. C	23. A	43. B	63. D
4. C	24. B	44. E	64. B
5. E	25. E	45. A	65. B
6. E	26. E	46. A	66. A
7. B	27. D	47. D	67. A
8. D	28. E	48. E	68. A
9. D	29. E	49. E	69. B
10. C	30. D	50. A	70. B
11. A	31. D	51. E	71. -
12. B	32. A	52. E	72. -
13. C	33. C	53. D	73. -
14. C	34. A	54. C	74. -
15. D	35. D	55. C	75. -
16. C	36. A	56. E	76. -
17. C	37. C	57. E	77. -
18. E	38. C	58. D	78. -
19. E	39. E	59. B	79. -
20. A	40. D	60. B	80. -