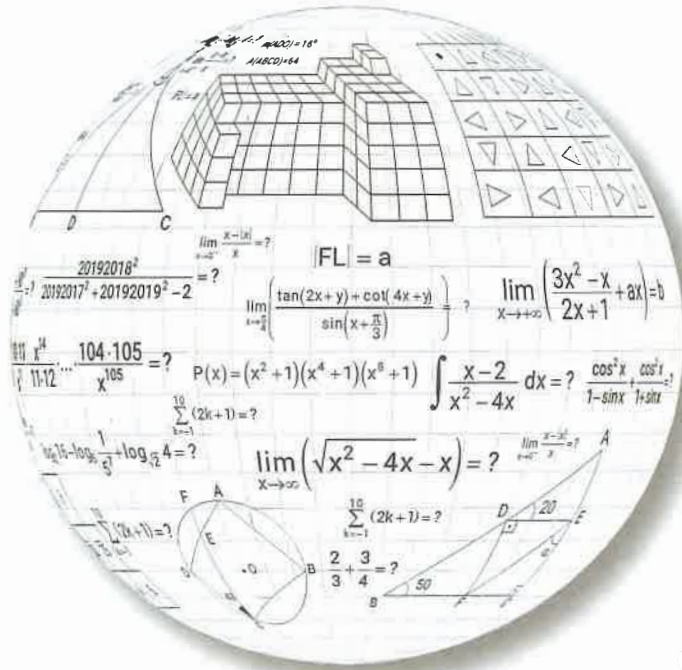




GALATA YÖS-SAT YAYINLARI



Yeni Tarz Sorular New Style Questions

YÖS

30

ÖZELDEN GENELE  
DENEME SINAVI

SPECIAL TO GENERAL  
TRIAL EXAM

Bu kitabın tüm hakları Sarıkaya eğitim danışmanlık hizmetleri limitet şirketine aittir. Bu kitabın tamamını veya bir kısmını elektronik, mekanik, fotokopi ya da herhangi bir kayıt sistemiyle çoğaltılması ve yayımlanması yasaktır.

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## ÖNSÖZ

Değerli öğretmen ve sevgili öğrencilerimiz;

Galata Eğitim kurumları, 2005'ten bugüne YÖS, SAT ve TÖMER sınavlarına hazırlanan öğrencilerimize eğitim öğretimin yanısıra rehberlik hizmetleri de veren bir eğitim kurumudur. Kurumumuz ülkemizde YÖS'e girecek öğrencilerle birlikte dünyanın farklı yerlerinden ülkemize gelen uluslararası öğrencilere de YÖS'e hazırlanma aşamasında şu hizmetleri vermektedir;

- Ders çalışma teknikleri
- Üniversite ve bölüm bilgileri
- Başvuru ve tercih aşamasında rehberlik hizmetleri

Öğrencilerimiz bu aşamalardan doğru yönlendirmelerle geçerek, adım adım başarıya ulaşması sağlanmaktadır.

Elinizde bulunan 30 Özelden Genele Deneme kitabı 80 sorudan oluşmaktadır ve her denemenin ilk 40 sorusu yeni, diğer 40 sorusu ise eski konulardan olacak şekilde sarmal sisteme göre hazırlanmıştır. Üniversitelerin son yıllarda YÖS'te sormuş oldukları yeni tarz sorulara göre hazırlanmıştır. Bütün konuları kapsayacak şekilde her tarz sorudan hazırlanan kitabımız, sizleri başarıya ulaştıracak ve sınavlarda karşınıza çıkacak sorularda pratiklik kazandıracaktır. Değerli öğretmen ve sevgili öğrencilerimize faydalı olması dileğiyle.

## FOREWORD

Dear teacher and dear students;

Galata Eğitim Kurumları is an educational institution that provides guidance services as well as education to our students who are preparing for YÖS, SAT, and TÖMER exams since 2005. Our institution provides the following services to international students coming to our country from different parts of the world as well as students who will enter YÖS in our country;

- Study techniques
- University and department information
- Guidance services at the application and selection stage

Our students are enabled to achieve success step by step, bypassing through these stages with the right guidance.

The 30 Special to General trial book you have is composed of 80 questions, and each trial exam has been prepared according to the spiral system, with the first 40 questions being new and the other 40 questions from old topics. It has been prepared according to the new style questions that universities have asked in YÖS in recent years. Our book, which is prepared from all kinds of questions in a way to cover all subjects, will make you successful and give you practicality in the questions you will encounter in exams. We hope it will be useful to our dear teachers and students.

## AÇIKLAMA

30 Özelden Genele deneme kitabının özelliği:

80 sorudan oluşan bu kitabımızda her denemede 30 matematik, 30 IQ ve 20 geometri sorusu vardır.

80 soruluk her denemenin ilk 40 sorusu yeni konu, diğer 40 sorusu da eski konuları kapsayacak şekilde hazırlanmıştır.

Öğrencilerin en iyi öğrenme ve pekiştirme durumları dikkate alınarak, sarmal sistemle hazırlanan bu kitapta hem konuları anlayıp anlamadığınızı göreceksiniz hem de, yeni nesil bütün soru çeşitlerinden sorular çözmüş olacaksınız.

YÖS'te bir ilk olan bu deneme kitabı sizleri hayalinizdeki üniversite ve bölüme taşıyacaktır.

## EXPLANATION

Feature of 30 Special to General trial book:

In this book of 80 questions, there are 30 math, 30 IQ, and 20 geometry questions in each trial.

The first 40 questions of each 80-question trial were prepared in a way to cover the new topic and the other 40 questions to cover the old topics.

In this book prepared with a spiral system, taking into account the best learning and reinforcement situations of the students, you will see whether you understand the topics and solve questions from all kinds of new generation questions.

This trial exams book is a first in YÖS, will take you to your dream university and department.

# Başarıya Götüren Yol

Mat	Problemler / Problems
IQ	Problemler / Problems
Geo	Yükseklikler / Heights

Mat	Yükseklikler - Sorular heights and areas
IQ	Problemler / Problems
Geo	Katı Cisim B. / Solid Body B.

Mat	Matris ve Belirli Matrix and Determinant
IQ	Tablolar
Geo	Katı Cisim I. / Solid Body I.

Mat	İntegral / Integral
IQ	3 Boyutlu Cisim I. / 3D Object
Geo	Analitik Geometri I Analytical Geometry I

Mat	İntegral / Integral
IQ	Kesme - Kırma / Cutting - Folding
Geo	Analitik Geometri II Analytical Geometry II

Mat	Parabolün Özellikleri Area - Length
IQ	Sorular - Üçgen Sorular Clarks - Triangle Counting
Geo	Alanlar / Geometry

Mat	Türev / Derivative
IQ	Yükseklik Problemleri Height Calculations
Geo	Yükseklik Alan / Area in a circle

Mat	Türev / Derivative
IQ	Farklı Olarak Bulma Finding the different
Geo	Yükseklik Alan / Area in a circle

Mat	Limit, Süreklilik / Limit, Continuity
IQ	Yükseklik Problemleri Height Relations, Sort
Geo	Çemberin Uzunluğu / Circle Length

Mat	Kesme ve Çarpma Cutting and Multiplication
IQ	Yükseklik Problemleri Height Relations, Table
Geo	Çokgenler / Rectangles

Mat	Kesme ve Çarpma Cutting and Multiplication
IQ	Yükseklik Problemleri Height Relations, Table
Geo	Kare / Square

Mat	Yeni Tanımlı Fonksiyonlar Custom Defined Functions
IQ	Yükseklik Problemleri Height Relations, Sort
Geo	Çemberin Alan / Area of Circle

Mat	Trigonometri / Trigonometry
IQ	Yükseklik Problemleri Height Relations
Geo	Yamuk / Trapezoid

Mat	Trigonometri / Trigonometry
IQ	KLM
Geo	Yükseklik Üçgeni / Height Triangle

Mat	3. Dereceden Denklemler Parabol Eğilimlilik
IQ	Çizim - Alan / Construction - Area
Geo	Paralelkenar II. / Parallelogram II

Mat	İşlem / Operation
IQ	3. Dereceden Denklemler Cubic Equations and Comparison
Geo	Çokgenler / Polygons

Mat	Yükseklik Problemleri Height Relations
IQ	Çokgenler / Polygons
Geo	Çokgenler / Quadrilateral

Mat	Paralelkenar / Parallelogram
IQ	Çokgenler / Polygons
Geo	Paralelkenar I. / Parallelogram I

Mat	Çarpma ve Çarpma Sorular Multiplication Problems and Table
IQ	Çokgenler / Squares Matching
Geo	Yükseklik Alan Sorular Height Relations in Triangles

Mat	Paralel / Parallel
IQ	Çokgenler / Matching
Geo	Yükseklik Alan / Area of Triangles

Mat	Alanlar / Area
IQ	Yükseklik Sorular
Geo	Yükseklik Alan / Area of Triangles

Mat	Doğal Sayılar / Natural Numbers
IQ	Sayı Sorular / Number Relations
Geo	Alanlar / Medians

Mat	Sayılar / Numbers
IQ	Tablolar / Tables
Geo	Yükseklik Sorular Height Relations in Triangles

Mat	Alan Sorular / Area and Properties
IQ	Tablolar / Tables
Geo	Yükseklik Sorular Height Relations in Triangles

Mat	Alan Sorular ve Alan Sorular Area Properties and Area Relations
IQ	Sayı Sorular / Number Relations
Geo	Alanlar / Rectangles

Mat	Çarpma ve Çarpma Sorular Multiplication and Factorization
IQ	Çokgenler / Operations
Geo	Alanlar ve Yükseklik Sorular Area and Height Relations

Mat	Kökü Sayılar / Radical Expressions
IQ	Çokgenler / Operations
Geo	Alan Sorular (Kare) / Right Triangle

**KTS-1**

Mat	İşlem Öncesi ve Rasyonel Sayılar Order of operations and Rational Numbers
IQ	Şifreler / Passwords
Geo	Açılar / Angles

Mat	Alan Sorular ve Alan Sorular Area - Engine equations
IQ	Sayı Sorular / Number patterns
Geo	Yükseklik Alanlar / Angles in triangles

Mat	Kökü Sayılar Exponential Expressions
IQ	Sayı Sorular / Number patterns
Geo	Alan Sorular / Right triangle

IQ

1.  $\left. \begin{array}{l} \star \blacksquare \heartsuit ? \triangle \\ \triangle \heartsuit ? \star \bullet \\ \blacktriangle \triangle \blacksquare \heartsuit \star \\ \blacksquare \heartsuit \triangle \star ? \\ ? \blacksquare \star \triangle \blacksquare \end{array} \right\} \begin{array}{l} 12543 \\ 93251 \\ 42132 \\ 35416 \\ 25314 \end{array} \Rightarrow \blacktriangle + \blacksquare + \heartsuit + \bullet = ?$

A) 15 B) 17 C) 19 D) 22 E) 25

2.  $\left. \begin{array}{l} 2421 \\ 5425 \\ 1125 \\ 5112 \\ 5241 \end{array} \right\} \begin{array}{l} ? ! ? / \\ // ? \backslash \\ \backslash ! ? \backslash \\ \backslash // ? \\ \backslash ? ! / \end{array} \Rightarrow \backslash // ? = ?$

A) 2421 B) 1125 C) 5425  
D) 5112 E) 5241

3.  $\left. \begin{array}{l} \text{KENAN} \\ \text{VARAN} \\ \text{YALAN} \\ \text{SARAN} \\ \text{KALAN} \end{array} \right\} \begin{array}{l} 52921 \\ 62821 \\ 32821 \\ 72921 \\ 34121 \end{array} \Rightarrow \text{KAVALYE} = ?$

A) 3272864 B) 3272164  
C) 3247864 D) 2272864  
E) 2171864

4. MERHABA ☺ = REMABAH  
☹ TÜRKİYE = RKYİÜTE  
☹ FAKÜLTE ☺ = KÜTLAFE ☺ = TÜKAFEL  
☹ KATILIM ☺ = ?

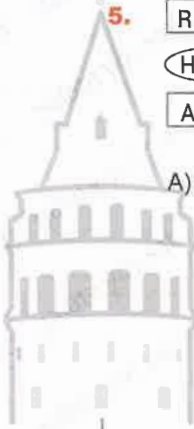
A) IITMKAL B) IITAKML C) TIILAKM  
D) TIIAKML E) AKMLTII

5.  $\left. \begin{array}{l} \text{RESİM} \\ \text{HALİL} \\ \text{ATİKE} \end{array} \right\} \begin{array}{l} = \text{EMRİS} \\ = \text{LİLAH} \\ = ? \end{array}$

A) EKİTA B) AKİTE C) AKİET  
D) ETİKA E) KİAET

6.  $\left. \begin{array}{l} \heartsuit \text{ MELİKE} \\ \heartsuit \heartsuit \heartsuit \heartsuit \text{ MELİKE} \end{array} \right\} \begin{array}{l} = \text{EMİLEK} \\ = ? \end{array}$

A) EMİLEK B) EKİLEM C) LİMEKE  
D) MEİLKE E) MELİKE



7.  $\frac{YIL}{YEL} = \star \bullet \star$   
 $\frac{SULU}{YOLU} = \bullet \bullet \star \star$   
 $\frac{SELAM}{VATAN} = ?$

- A)  $\star \star \star \star \star$     B)  $\star \bullet \star \bullet \star$     C)  $\star \star \star \bullet \bullet$   
 D)  $\bullet \bullet \bullet \star \bullet$     E)  $\bullet \bullet \star \bullet \bullet$

8.  $\frac{SIVAS}{YAVAŞ} = 00110$   
 $\frac{KALITIM}{SATILIM} = ?$

- A) 0101010    B) 0101011    C) 0100111  
 D) 1111000    E) 1010100

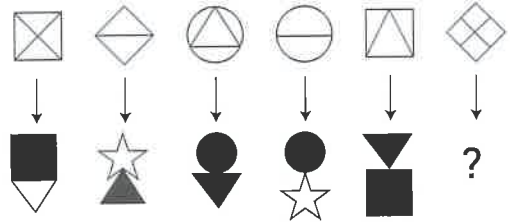
9.  $\left. \begin{array}{l} SEL \\ YEL \\ ERA \end{array} \right\} = ?$

- A) 123    B) 345    C) 246  
 423    645    845  
 254    478    468  
 C) 135    D) 680  
 795    886  
 537    478

10.  $(x, y) \quad (z, t) \quad (p, y) \quad (r, t) \quad (z, p) \quad (x, r)$   
 $(K,L) \quad (M,N) \quad (O,L) \quad (S,N) \quad (M,O) \quad ?$

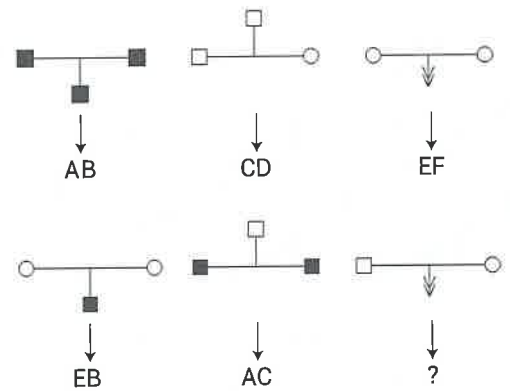
- A) K,S    B) M,K    C) O,N    D) S,L    E) O,S

11.



- A)    B)    C)   
 D)    E)

12.



- A) BF    B) DA    C) BC  
 D) EA    E) DF



13. KALABALIK = 123242361  
GALATA = ?

- A) 423252                      B) 123242  
C) 223292                      D) 543424  
E) 823272

14. DÜZCELİ                      MEHMET = ?

- A) 1234517                      859850  
B) 1234567                      856850  
C) 1234567                      859850  
D) 1233567                      859850  
E) 1234567                      857850

15. SELA ● = SELE  
AMİR ★ = MİRA  
(HİFA ●) ★ = ?

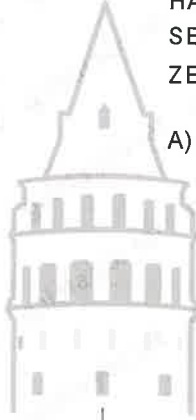
- A) İFEH                      B) FİHA                      C) İFHE  
D) FİAH                      E) HİFA

16. HİFA } 84  
LİVA } 95  
SAFA } 76 ⇒ SİLA = ?  
SİRA } 92  
HİVA } 87

- A) 47                      B) 58                      C) 52                      D) 63                      E) 86

17. SAHİ } 18  
GAFİ } 36  
HALİ } 46 ⇒ SAFİ = ?  
SEFİ } 57  
ZELİ } 28

- A) 57                      B) 27                      C) 38                      D) 56                      E) 16



18. SEL, KEL = - + +  
SİR, SUR = + - +  
HALE, JALE = ?

- A) - + + +                      B) - - + +                      C) - - - +  
D) + - + -                      E) - + - +



19. " KALEMLİK " sözcüğünün, rakamlar ile yazılmış karşılığı olabilir?

Which of the following may be the equivalent of the word " KALEMLİK " in numbers?

- A) 23475442                      B) 34456789  
C) 98765749                      D) 13456771  
E) 45677894

20.  $\left. \begin{array}{l} \square \star \triangle \diamond \circ \\ \square \star \triangle \circ \diamond \\ \star \triangle \circ \diamond \square \\ \star \circ \square \diamond \triangle \end{array} \right\} \begin{array}{l} 71498 \\ 14897 \\ 71489 \\ 18794 \end{array} \Rightarrow \star \triangle \diamond \square \circ = ?$

- A) 98147                      B) 47941  
C) 14978                      D) 81947  
E) 18794

KABA	TURA	KARE	ERVA
26	9624	9536	?

- B) 8659                      C) 8695  
D) 26                      E) 3695

22.  $\left. \begin{array}{l} \otimes \oplus \sqcup \square \\ \oplus \sqcup \nabla \triangle \\ \otimes \oplus \oplus \sqcup \\ \oplus \oplus \square \triangle \end{array} \right\} \begin{array}{l} 2579 \\ 2489 \\ 1234 \\ 1347 \end{array} \quad 1984 = ?$

- A)  $\oplus \sqcup \triangle \nabla$                       B)  $\otimes \triangle \nabla \sqcup$   
C)  $\otimes \square \oplus \oplus$                       D)  $\oplus \triangle \nabla \oplus$   
E)  $\square \sqcup \oplus \triangle$

23.

DENİZ	$\curvearrowright$	$\odot$	$\curvearrowleft$	$\oplus$	$\updownarrow$				
YAZMEVSİMİ	$\odot$	$\curvearrowright$	$\odot$	$\square$	$\triangle$	$\oplus$	$\curvearrowright$	$\nearrow$	$\leftrightarrow$
KIZKALESİ	?								

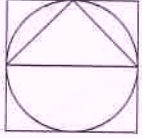
- A)  $\odot \square \oplus \updownarrow \nearrow \leftrightarrow \curvearrowright \star \leftrightarrow$   
B)  $\odot \curvearrowright \triangle \curvearrowleft \nearrow \square \curvearrowright \star \square$   
C)  $\odot \leftrightarrow \curvearrowright \nearrow \square \nearrow \curvearrowleft \oplus \odot$   
D)  $\updownarrow \curvearrowright \odot \oplus \curvearrowright \leftrightarrow \curvearrowright \star \leftrightarrow$   
E)  $\leftrightarrow \star \curvearrowright \leftrightarrow \nearrow \updownarrow \triangle \curvearrowright \odot$

24. KRZA, RMAD, KOZE, OMED, RZOM  
harf bloklarının sayısal karşılıkları aşağıdaki seçeneklerde karışık olarak verilmiştir. Buna göre RMAD "in sayısal karşılığı hangisidir?

The numerical equivalents of the letter blocks are given mixed in the options. Accordingly, what is the numerical equivalent of RMAD?

- A) 1234      B) 7325      C) 3456  
D) 1486      E) 7128

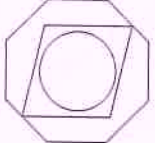
25.



⇒ KLM



⇒ KYT



⇒ RZL



⇒ ?

- A) LZM      B) LZT      C) MZY  
D) YTR      E) KRT

26.  $\left. \begin{array}{l} 3167 \\ 6342 \\ 7631 \\ 1763 \end{array} \right\} \begin{array}{l} \text{EKLA} \\ \text{ALEK} \\ \text{LERİ} \\ \text{KALE} \end{array} \Rightarrow \text{REAK} = ?$

- A) 3714      B) 3471      C) 4371  
D) 3174      E) 7414

27.  $\left. \begin{array}{l} \bullet \cdot * + - \\ \blacksquare \cdot \nabla + * \\ \cdot + \square \cdot \circ \\ - + \circ \cdot \bullet \\ \circ \cdot \bullet + * \end{array} \right\} \begin{array}{l} \text{LEMAR} \\ \text{MASEL} \\ \text{MERAK} \\ \text{SEPAR} \\ \text{KALEM} \end{array} \Rightarrow \text{KERAM} = ?$

- A)  $- \cdot + * \cdot$       B)  $- \bullet * + \cdot$   
C)  $* - + \bullet \cdot$       D)  $* - + \bullet \cdot$   
E)  $- \cdot * + \bullet$

28. KeT0kKZm = # ? ! % # 0 Δ  
kKZOmTe = ?

- A) % # 0 ! Δ # ? %  
B) % # 0 ! Δ ? %  
C) Δ ? % # 0 ! % #  
D) # ? Δ ! % # 0  
E) % # 0 ? Δ ! %

29. (k)(r)(d)(n)(z)(ğ)(ş)(ç) = (3)(4)(1)(5)(8)(7)(6)(2)  
(n)(ş)(r)(d)(k)(ç) = ?

- A) 56123      B) 231465      C) 327648  
D) 321684      E) 561432

30. TASE }  
SiCA } 2961 7493 ⇒ CEKİ = ?  
KATA } 2371 8323  
TCDE }

- A) 9184      B) 7186      C) 8384  
D) 6739      E) 8421

2.  $\left( (3^{-1} + 4^{-1}) + \left( \frac{12}{5} \right)^{-1} \right)^2 = ?$

- A) -1      B) 2      C) -2      D) 3      E) 1

3.  $a = \frac{20}{11}$        $b = \frac{200}{111}$        $c = \frac{2000}{1111}$   
⇒ ? < ? < ?

- A)  $a < b < c$       B)  $a < c < b$   
C)  $c < b < a$       D)  $b < c < a$   
E)  $c < a < b$

Matematik Maths

1.  $\frac{3}{4} - \frac{\frac{3}{4}}{5} = ?$

- A)  $\frac{13}{5}$       B)  $\frac{18}{5}$       C)  $\frac{21}{5}$       D)  $\frac{23}{5}$       E)  $\frac{27}{5}$

4.  $x \neq 0$ ,  $y \neq 0$  olmak üzere

$$\frac{x0,y}{x,0y} + \frac{x,xy}{xx,y} - \frac{y,x}{yx} = ?$$

- A) 20      B) 10      C)  $\frac{1}{10}$       D) 0      E) -10

5.  $a = -2,3456$   
 $b = -2,3456$   
 $c = -2,3456$   
 $d = -2,3456$

? < ? < ? < ? < ?

- A)  $b < a < c < d$   
 B)  $c < b < a < d$   
 C)  $d < c < b < a$   
 D)  $a < b < c < d$   
 E)  $d < a < c < b$

6.  $\left(3 + \frac{1}{3}\right) - \left(\frac{1}{3} - 2\right) = ?$   
 $\left(4 - \frac{1}{2}\right) + \left(\frac{1}{2} + 6\right) = ?$

- A) 10    B) 2    C) 1    D)  $\frac{1}{2}$     E)  $\frac{1}{10}$

7.  $1 - \frac{1}{1 - \frac{1}{1 - \frac{1}{x}}} = ?$

- A)  $1+x$     B)  $1-x$     C)  $-x$   
 D)  $x$     E)  $x-1$

8. Bir kesrin değeri  $\frac{3}{5}$  dir. Bu kesrin paydasından 5 çıkarılırsa kesrin değeri  $\frac{2}{3}$  oluyor. İkinci kesrin paydası ve payı arasındaki fark kaçtır ?

The value of a fraction  $\frac{3}{5}$ . If 5 is subtracted from the denominator of this fraction, the value of the fraction becomes  $\frac{2}{3}$ . What is the difference between the denominator and the numerator of the second fraction?

- A) 5    B) 10    C) 12    D) 15    E) 18

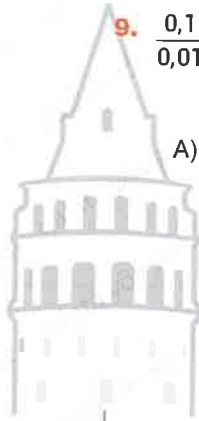
9.  $\frac{0,1}{0,01} + \frac{0,01}{0,001} - \frac{0,001}{0,0001} = ?$

- A) 0,1    B) 0,2    C) 10    D) 20    E) 100

10.  $\frac{x}{10}$  sayısı  $\frac{y}{100}$  sayısının kaç katıdır ?

How many times  $\frac{x}{10}$  is  $\frac{y}{100}$  ?

- A)  $\frac{x}{10y}$     B)  $\frac{10x}{y}$     C)  $\frac{10y}{x}$     D)  $\frac{xy}{10}$     E)  $\frac{10}{xy}$



11.  $x$  pozitif bir ondalık sayıdır.  $x + \frac{1}{40}$  bir tam sayı olduğuna göre  $x$ 'in virgülden sonraki kısmı kaçtır ?

Since  $x$  is a positive decimal number and  $x + \frac{1}{40}$  is an integer, what is the part of  $x$  after the comma ?

- A) ... , 025      B) ... , 075      C) ... , 125  
D) ... , 250      E) ... , 975

12.  $a, b, c$  negatif tamsayılar  $\frac{a}{7} = \frac{b}{8} = \frac{c}{9}$  olduğuna göre  $a, b, c$  sıralaması nasıldır ?

What is the order of  $a, b, c$  since these numbers are negative integers and  $\frac{a}{7} = \frac{b}{8} = \frac{c}{9}$  ?

- A)  $a < b < c$       B)  $a < c < b$   
C)  $c < a < b$       D)  $c < b < a$   
E)  $b < a < c$

13.  $\left(1 - \frac{1}{3}\right)\left(1 + \frac{1}{3}\right)\left(1 + \frac{1}{9}\right)\left(1 + \frac{1}{81}\right) = 1 - \frac{1}{3^a}$

ise  $a$  kaçtır ?  
What is  $a$ ?

- A) 2      B) 4      C) 6      D) 8      E) 10

14.  $\frac{1}{56} + \frac{1}{72} + \frac{1}{90} = ?$

- A)  $\frac{3}{70}$       B)  $\frac{13}{90}$       C)  $\frac{7}{10}$       D)  $\frac{3}{20}$       E)  $\frac{3}{40}$

15.  $1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{3}}}} = ?$

- A)  $\frac{11}{18}$       B)  $\frac{1}{3}$       C)  $\frac{18}{11}$       D) 3      E) 1

16.  $\frac{1}{2} < a < b < \frac{11}{4}$  sıralamasında birbirini izleyen sayılar arasındaki farklar eşittir. Buna göre  $a + b$  kaçtır ?

The differences between the consecutive numbers in the order are equal. Accordingly, what is  $a+b$ ?

- A)  $\frac{5}{4}$  B)  $\frac{7}{4}$  C)  $\frac{11}{4}$  D)  $\frac{13}{4}$  E) 1

17.  $3 + \frac{5}{2 + \frac{3}{x}} = 4 \Rightarrow \frac{3x-1}{3x+1} = ?$

- A)  $\frac{2}{3}$  B)  $\frac{1}{2}$  C)  $\frac{5}{3}$  D) 2 E) 3

18.  $a, b, c$  ardışık tek sayılardır.  
 $a, b, c$  are consecutive odd numbers.

$$\left(1 + \frac{2}{a}\right) \left(1 + \frac{2}{b}\right) \left(1 + \frac{2}{c}\right) = 3$$

$$\Rightarrow a+b+c = ?$$

- A) 9 B) 15 C) 21 D) 27 E) 33

19.  $x = \frac{2a+b}{a-b}$   $y = \frac{a-b}{a+2b}$

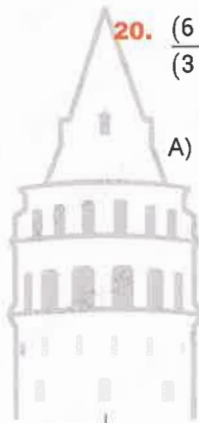
olduğuna göre  $x$ 'in  $y$  cinsinden ifadesi hangisidir ?

Accordingly, what is  $y$  in terms of  $x$  ?

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

20.  $\frac{(6:3):3}{(3:3):6} = ?$

- A) -1 B)  $\frac{2}{3}$  C)  $\frac{4}{9}$  D) 4 E) 6



21.  $x=0,2$  ve  $y=0,02 \Rightarrow \frac{1}{x} + \frac{1}{y} = ?$

- A) 50,25 B) 55 C) 55,25  
D) 75 E) 100

22.  $\left(1+\frac{1}{2}\right)\left(1+\frac{1}{3}\right)\left(1+\frac{1}{4}\right)\dots\left(1+\frac{1}{x}\right)=?$

- A)  $x+1$       B)  $\frac{x+1}{2}$       C) 1  
D) 3      E)  $2x+1$

23.  $a + \frac{1}{3 - \frac{3}{a^2 - 3}}$

ifadesinin tanımsız yapan kaç farklı  $a$  değeri vardır?  
How many different values are there to make the expression undefined?

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

24.  $\frac{1}{3} + \frac{1}{4} - \frac{1}{5} + \frac{1}{3} + \frac{1}{4} - \frac{1}{5} + \frac{1}{3} + \frac{1}{4} - \frac{1}{5} + \dots + \frac{1}{3}$

ifadesinde 61 terim olduğuna göre işlemin sonucu kaçtır?

Since there are 61 terms in the expression, what is the result of the operation?

- A) 8      B) 9      C) 10      D) 11      E) 12

25.  $1 - \frac{0,6}{0,9 - \frac{1}{3,9 - \frac{1}{0,5}}} = ?$

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

26.  $\left(1 + \frac{6}{1 + \frac{6}{1 + \frac{6}{\ddots}}}\right) + \left(1 + \frac{1 + \frac{\ddots}{2}}{1 - \frac{2}{2}}\right) = ?$

- A) 3      B)  $\frac{6}{5}$       C)  $\frac{18}{5}$       D)  $\frac{21}{5}$       E) 5

27.  $\frac{7}{11} + \frac{8}{13} + \frac{9}{15} = A \Rightarrow \frac{4}{11} + \frac{5}{13} + \frac{6}{15} = ?$

- A)  $A+1$       B)  $A+2$       C)  $A+3$   
D)  $2-A$       E)  $3-A$

28. a ve b tam sayılar.  
a and b are integers.

$$\frac{1}{3a+b-7} + \frac{1}{a-2b+6} = 1$$

olduğuna göre  $3a+3b$  kaçtır?  
accordingly, what is  $3a+3b$ ?

- A) 12    B) 15    C) 18    D) 21    E) 24

29.  $\left(1 - \frac{1}{9}\right)\left(1 - \frac{1}{16}\right)\left(1 - \frac{1}{25}\right) \dots \left(1 - \frac{1}{2500}\right) = ?$

- A)  $\frac{1}{25}$     B)  $\frac{1}{50}$   
C)  $\frac{17}{25}$     D)  $\frac{51}{125}$     E) 1

30.  $x = 0,2 + 0,02 + 0,002 + \dots$

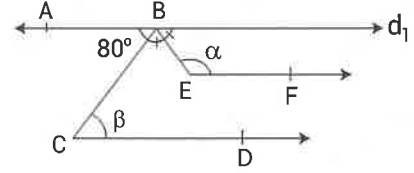
$$y = \frac{3}{10^2} + \frac{3}{10^3} + \frac{3}{10^4} + \dots$$

$$\Rightarrow x + y = ?$$

- A)  $\frac{19}{90}$     B)  $\frac{23}{90}$     C)  $\frac{29}{90}$     D)  $\frac{31}{90}$     E)  $\frac{2}{9}$

Geometri    Geometry

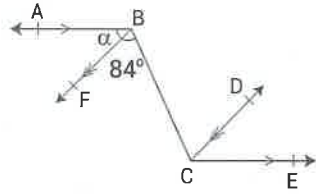
1.  $d_1 \parallel [EF] \parallel [CD]$   
 $m(\widehat{ABC}) = 80^\circ$   
 $m(\widehat{BEF}) = \alpha$   
 $m(\widehat{BCD}) = \beta$   
 $\alpha - \beta = ?$



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

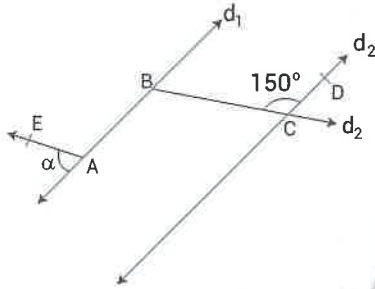


2.  $[BA \parallel [CE$   
 $[BF \parallel [CD$   
 $m(\widehat{CBF}) = 84^\circ$   
 $m(\widehat{BCE}) = 144^\circ$   
 $\alpha = ?$



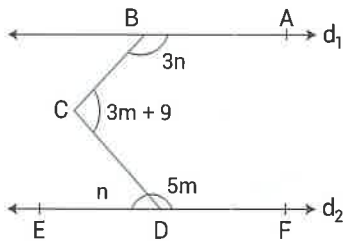
- A) 34 B) 44 C) 54 D) 60 E) 64

3.  $d_1 \parallel d_2$   
 $[AE \parallel [BC$   
 $m(\widehat{BCD}) = 150^\circ$   
 $\alpha = ?$

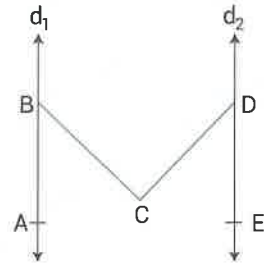


- A) 30 B) 40 C) 100 D) 120 E) 150

4.  $d_1 \parallel d_2$   
 $m(\widehat{ABC}) = 3n$   
 $m(\widehat{BCD}) = 3m+9$   
 $m(\widehat{CDF}) = 5m$   
 $m(\widehat{CDE}) = n$   
 $n = ?$   
 A) 45 B) 50 C) 55 D) 60 E) 65

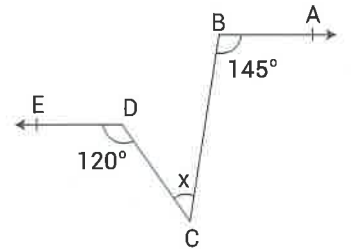


5.  $d_1 \parallel d_2$   
 $m(\widehat{ABC}) = 7x$   
 $m(\widehat{CDE}) = 9x$   
 $m(\widehat{BCD}) = 160$   
 $x = ?$



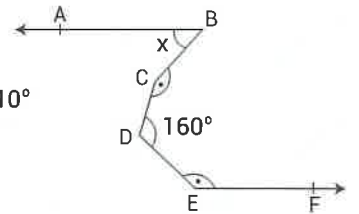
- A) 10 B) 12 C) 14 D) 16 E) 20

6.  $[BA \parallel [DE$   
 $m(\widehat{EDC}) = 120^\circ$   
 $m(\widehat{ABC}) = 145^\circ$   
 $m(\widehat{DCB}) = x = ?$



- A) 60 B) 65 C) 70 D) 75 E) 85

7.  $[BA \parallel [EF$   
 $m(\widehat{BCD}) = m(\widehat{DEF}) = 110^\circ$   
 $m(\widehat{CDE}) = 160^\circ$   
 $x = ?$



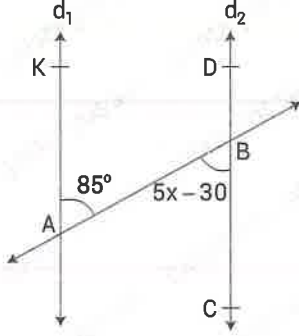
- A) 10 B) 20 C) 30 D) 40 E) 50

8.  $d_1 // d_2$

$$m(\widehat{ABC}) = 5x - 30$$

$$m(\widehat{KAB}) = 85^\circ$$

$$x = ?$$



- A) 23    B) 25    C) 26    D) 29    E) 30

9. A,B,C doğrusal

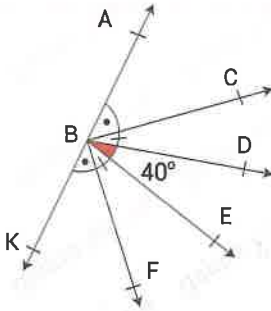
A,B,C are linear

$$m(\widehat{ABC}) = m(\widehat{KBF})$$

$$m(\widehat{CBD}) = m(\widehat{EBF})$$

$$m(\widehat{DBE}) = 40^\circ$$

$$m(\widehat{ABD}) = ?$$



- A) 40    B) 50    C) 60    D) 70    E) 80

10.  $d_1 // d_2$

$$m(\widehat{CAB}) = a$$

$$m(\widehat{ABD}) = b$$

$$m(\widehat{ACE}) = c$$

$$m(\widehat{BDF}) = d$$

a, b, c, d arasındaki ilişki nedir ?

What is the relation between a,b,c,d?

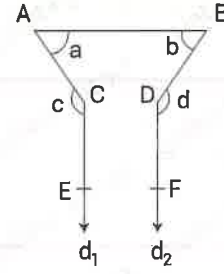
$$A) c + d - a - b = 180$$

$$B) a + b - c - d = 180$$

$$C) c - d + a - b = 180$$

$$D) a + c - b - a = 180$$

$$E) a + c - b - d = 180$$



11.  $d_1 // d_2$

$$m(\widehat{ABC}) = 110$$

$m(\widehat{DCB})$ 'nin tümleri kaç derecedir ?

How many degrees in the complementary to  $m(\widehat{DCB})$ ?

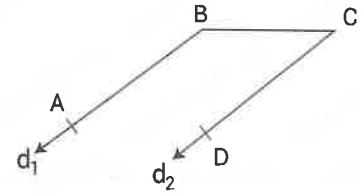
$$A) 15$$

$$B) 20$$

$$C) 70$$

$$D) 110$$

$$E) 115$$



12. Bir açının bütünleri tümlerinin iki katından  $40^\circ$  fazla ise bu açı kaç derecedir ?

If the supplementary of an angle is 40 times more than twice the complementary, how many degrees is that angle?

$$A) 30$$

$$B) 40$$

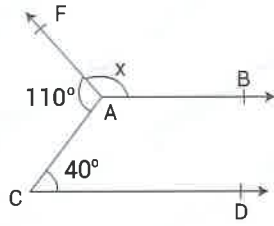
$$C) 45$$

$$D) 50$$

$$E) 60$$

13.  $[AB \parallel CD]$

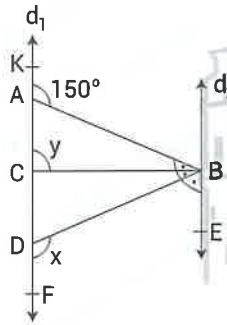
$m(\widehat{ACD}) = 40^\circ$   
 $m(\widehat{CAF}) = 110^\circ$   
 $x = ?$



- A) 100    B) 110    C) 120    D) 130    E) 140

14.  $d_1 \parallel d_2$

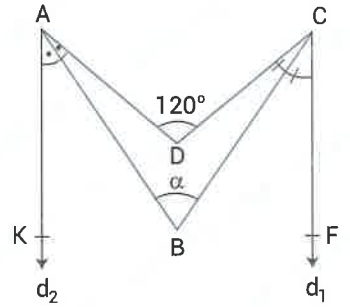
$m(\widehat{ABC}) = m(\widehat{CBD}) = m(\widehat{DBE})$   
 $m(\widehat{KAB}) = 150^\circ$   
 $m(\widehat{BDF}) = x$   
 $m(\widehat{ACB}) = y$   
 $x - y = ?$



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

15.  $d_1 \parallel d_2$

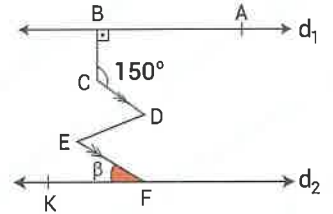
$m(\widehat{KAB}) = m(\widehat{BAD})$   
 $m(\widehat{DCB}) = m(\widehat{BCF})$   
 $m(\widehat{ADC}) = 120^\circ$   
 $\alpha = ?$



- A) 40    B) 50    C) 60    D) 70    E) 80

16.  $d_1 \parallel d_2$

$[CD \parallel EF]$   
 $m(\widehat{BCD}) = 150^\circ$   
 $m(\widehat{EFK}) = \beta = ?$



- A) 40    B) 50    C) 60    D) 70    E) 80

17.  $d_1 // d_2$

$$m(\widehat{KAB}) = x$$

$$m(\widehat{ABC}) = y$$

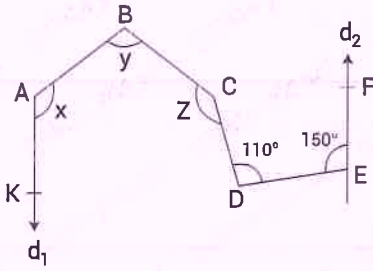
$$m(\widehat{BCD}) = z$$

$$m(\widehat{CDE}) = 110^\circ$$

$$m(\widehat{DEF}) = 150^\circ$$

$$x + y + z = ?$$

- A) 110    B) 150    C) 300    D) 400    E) 440



19.  $d_1 // d_2$

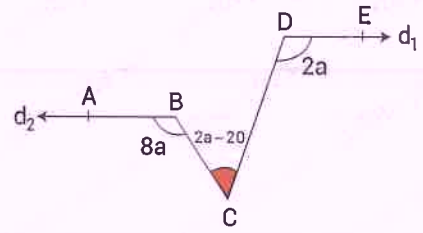
$$m(\widehat{CDE}) = 2a$$

$$m(\widehat{ABC}) = 8a$$

$$m(\widehat{BCD}) = 2a - 20$$

$$a = ?$$

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



18.  $[AF \perp [AB$

$$m(\widehat{EDC}) = 45^\circ$$

$$m(\widehat{AFE}) = 40^\circ$$

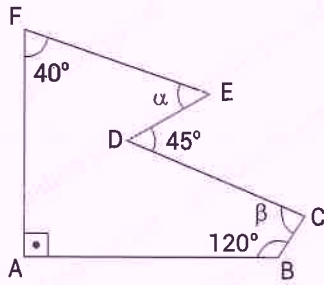
$$m(\widehat{ABC}) = 120^\circ$$

$$m(\widehat{FED}) = \alpha$$

$$m(\widehat{DCB}) = \beta$$

$$\alpha + \beta = ?$$

- A) 120    B) 130    C) 135    D) 140    E) 155



20.  $d_1 // d_2$

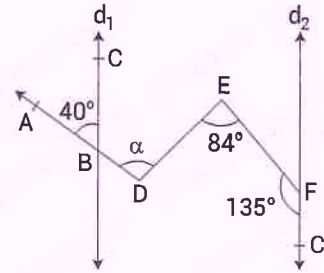
$$m(\widehat{ABC}) = 40^\circ$$

$$m(\widehat{DEF}) = 84^\circ$$

$$m(\widehat{EFC}) = 135^\circ$$

$$\alpha = ?$$

- A) 69    B) 70    C) 72    D) 79    E) 89



# Başarıya Götüren Yol

Mat	Problemler / Problems
IQ	Problemler / Problems
Geo	Vektörler / Vectors

Mat	Yükler / Loads
IQ	Problemler / Problems
Geo	Küre Çizim I / Right Body I

Mat	Matris ve Determinant Matrix and Determination
IQ	Geometri
Geo	Küre Çizim I / Right Body I

Mat	İntegral / Integral
IQ	3 Boyutlu Çizim / 3D Object
Geo	Analitik Geometri I Analytic Geometry I

Mat	İntegral / Integral
IQ	Kesirler / Fractions / Cutting / Folding
Geo	Analitik Geometri II Analytic Geometry II

Mat	Parabolün Temel Özellikleri Basic Properties of Parabola
IQ	Geometri / Geometry
Geo	Geometri / Geometry

Mat	Türev / Derivative
IQ	Geometrik Cisimler Shape Comparison
Geo	Çemberin Alanı / Area in a circle

Mat	Türev / Derivative
IQ	Paralel Çizim Bileşeni Finding the Different
Geo	Çemberin Alanı / Area in a circle

Mat	Limit, Süreklilik / Limit, Continuity
IQ	Geometrik Cisimler Figure Properties, Sort
Geo	Çemberin Uzunluğu / Circle Length

Mat	Kompleks Sayılar / Complex Numbers
IQ	Geometrik Cisimler Figure Properties, Table
Geo	Dikdörtgen / Rectangular

Mat	Logaritma Kavramları Logarithm, Induction
IQ	Geometrik Cisimler Figure Properties, Table
Geo	Kare / Square

Mat	Özellik Tanımlı Fonksiyonlar Custom Defined Functions
IQ	Geometrik Cisimler Figure Properties, Sort
Geo	Çemberin Alanı / Area in Circle

Mat	Trigonometri / Trigonometry
IQ	Geometrik Cisimler Comparing Shape Relations
Geo	Yamuk / Trapezoid

Mat	Trigonometri / Trigonometry
IQ	KLİM
Geo	Yükseklik Dörtgeni / Altitudes

Mat	2. Dereceden Benkdemler Parabol Eşitlikleri
IQ	Çizim Alanı / Ungeometric Area
Geo	Parabolün Alanı / Parabolic Area

Mat	İşlem / Operation
IQ	Küpe Kesim Kesimleri Cube Cutting and Comparison
Geo	Çokgenler / Polygons

Mat	Üçgenin Alanı Triangle Area
IQ	Geometrik Cisimler Geometric Solids
Geo	Dikgen / Quadrilateral

Mat	Polinom / Polynomial
IQ	Geometrik Cisimler Geometric Solids
Geo	Paralelgenil / Parallelogram

Mat	Yüksek Dereceden Benkdemler Higher Degree Polynomials
IQ	Geometrik Cisimler / Equations - Matching
Geo	Üçgenin Alanı / Area of Triangle

Mat	İkinci / Logic
IQ	Eşleştirme / Matching
Geo	Üçgenin Alanı / Area of Triangle

Mat	Çember / Circle
IQ	Yüksek Dereceden Benkdemler Higher Degree Polynomials
Geo	Üçgenin Alanı / Area of Triangle

Mat	Çokgen Sayılar / Number Patterns
IQ	Sayı İlişkileri / Number Relations
Geo	Merkezler / Medians

Mat	Sayılar / Numbers
IQ	Tablolar / Tables
Geo	Üçgenin Alanı / Area of Triangle

Mat	Oran Çizim / Ratio and Proportion
IQ	Tablolar / Tables
Geo	Üçgenin Alanı / Area of Triangle

Mat	Değerlendirme ve Mutlak Değer Value Inequality and Absolute Value
IQ	Sayı İlişkileri / Number Relations
Geo	Açıları / Angles

Mat	Çarpma ve Bölme / Factorization
IQ	İkinci / Quadratic
Geo	İkizkenar ve Eşkenar Üçgen Isosceles and Equilateral Triangle

Mat	Küpe Sayılar / Radical Expressions
IQ	İkinci / Quadratic
Geo	Çokgen (Dik) / Right Triangle



## KTS-2

Mat	İşlem Öncesi ve Rasyonel Sayılar Order of operations and Rational Numbers
IQ	Şifreler / Passwords
Geo	Açıları / Angles

Mat	Birinci Dereceden Benkdemler First-Degree equations
IQ	Sayı Ürüntüleri / Number patterns
Geo	Üçgenin Açıları / Angles in triangles ve önceki konular / and previous topics

Mat	Küpe Sayılar Radical Expressions
IQ	Sayı Ürüntüleri / Number patterns
Geo	Çokgen / Right triangle

## IQ

1. 5 12 28 62 132 ?

- A) 274                      B) 264                      C) 174  
D) 164                      E) 160

2. 87 86 74 62 50 ?

- A) 43                      B) 47                      C) 54  
D) 62                      E) 71

3. 64 72 53 52 42 ?

- A) 38                      B) 31                      C) 23  
D) 17                      E) 8

4. 16 23 28 38 49 ?

- A) 54                      B) 62                      C) 68                      D) 73                      E) 84

5. 114 118 126 138 162 ?

- A) 171                      B) 172                      C) 173                      D) 174                      E) 184

6. ? 222 130 68 30 10 2

- A) 347                      B) 350                      C) 317                      D) 268                      E) 230



7. 127 108 91 78 67 60 ?

- A) 55 B) 47 C) 33 D) 26 E) 17

8.  $\frac{1}{2}, \frac{2}{4}, \frac{4}{5}, \frac{5}{7}, \frac{6}{9}, ?$

- A)  $\frac{7}{9}$  B)  $\frac{9}{10}$  C)  $\frac{7}{11}$  D)  $\frac{9}{11}$  E)  $\frac{7}{13}$

9.  $\frac{47}{13}, \frac{39}{21}, \frac{33}{27}, \frac{28}{32}, \frac{36}{24}, ?$

- A)  $\frac{34}{36}$  B)  $\frac{24}{56}$  C)  $\frac{25}{30}$   
D)  $\frac{32}{31}$  E)  $\frac{29}{31}$

10.  $\frac{3}{7}, \frac{9}{16}, \frac{23}{12}, \frac{28}{32}, \frac{44}{51}, ?$

- A)  $\frac{56}{48}$  B)  $\frac{61}{63}$  C)  $\frac{65}{73}$  D)  $\frac{74}{65}$  E)  $\frac{83}{72}$

11. Dizinin hatalı terimini bulunuz ?  
Find the incorrect term of sequence ?

146 255 366 489 684 891

- A) 146 B) 255 C) 366 D) 489 E) 684

12.

13	23	23	38	A	62
16	18	B	28	49	38

A - B = ?

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



13. Hatalı terimin yerine gelecek sayıyı bulunuz ?  
Determine the correct replacement of incorrect term ?  
509 253 125 73 29 13

A) 34 B) 45 C) 61 D) 98 E) 109

14. (5,25)(49,76)(200,75)(625,?)

A) 5 B) 10 C) 15 D) 20 E) 25

15. (161,182)(59,22)(13,14)(8,?)

A) 43 B) 36 C) 23 D) 7 E) 1

16. ABDULLAH → 33212233  
YEŞİLYURT → ?

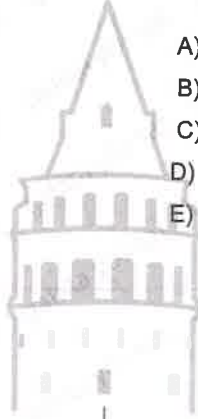
A) 342223233  
B) 142221333  
C) 442223333  
D) 342223132  
E) 342213312

17. G Ü Z E L L İ K      G Ö R E C E L İ D İ R  
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓      ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓  
5 5 3 4 2 2 2 3      ? ? ? ? ? ? ? ? ? ?

A) 52243422121  
B) 53241422123  
C) 53341422223  
D) 53441422223  
E) 53342412223

18. YÖSSINAVI → 2  
DUMLUPINAR → 4  
34MELİKE → 1  
1965DOĞUMLU → ?

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





26.  $f\left(\sqrt{x} + \frac{1}{\sqrt{x}}\right) = x^2 + \frac{1}{x^2} \Rightarrow f'(3) = ?$

- A) 84    B) 88    C) 90    D) 96    E) 98

27. Aşağıdakilerden hangisi yanlıştır ?  
Which of the following is false?

A)  $\int_{-7}^7 x^{15} dx = 0$

B)  $\int_{-3}^3 x^8 dx = 2 \int_{-3}^0 x^8 dx$

C)  $\int_{-\frac{\pi}{5}}^{\frac{\pi}{5}} \cos x dx = 2 \cdot \int_0^{\frac{\pi}{5}} \cos x dx$

D)  $\int_{-\frac{\pi}{8}}^{\frac{\pi}{8}} \sin x dx = 2 \cdot \int_0^{\frac{\pi}{8}} \sin x dx$

E)  $\int_{-2}^2 x^3 dx = 0$

28. 100223 altı basamaklı sayısının rakamlarının yerleri değiştirilerek altı basamaklı kaç çift sayı yazılabilir ?

How many even numbers with six digits can be written by exchanging the digits of the six-digit number 100223?

- A) 720    B) 120    C) 96    D) 84    E) 60

29.  $x, y, z, \in \mathbb{Z}^+$

$$\frac{x}{y+z} > \frac{x}{x+z}$$

aşağıdakilerden hangisi kesinlikle doğrudur ?  
Which of the following is absolutely true?

- A)  $y > z$     B)  $x > z$     C)  $x > y$   
D)  $y > x$     E)  $z > x$

30. p: a tek sayı / p: a odd number  
q: b çift sayı / q: b even number  
r: a + b tek sayı / r: a + b odd number  
s: a.b çift sayı / s: a.b even number  
Önermeleri veriliyor. / propositions are given.

Buna göre, her a ve b tam sayısı için  
Accordingly, for each integer a and b

I.  $r \wedge s \Leftrightarrow p \wedge q$

II.  $r \Leftrightarrow s$

III.  $p \wedge r \Rightarrow q$

Önermelerinden hangileri her zaman doğrudur ?  
Which of its propositions are always true?

- A) I.    B) III.    C) II. II.    D) I. III.    E) II. III.

### Geometri    Geometry

1.  $\bar{A} = (7, 8)$      $\bar{B} = (-9, -9)$      $\bar{BA} = ?$

- A)  $(-2, -1)$     B)  $(-2, 1)$     C)  $(2, -1)$   
D)  $(16, 17)$     E)  $(-16, -17)$

2.  $\vec{A}(3,4)$   $\vec{B}(-7,-1)$   $\vec{C}(2,-7)$   $\vec{D}(-x+2, -y-5)$  noktaları veriliyor / points are given.

$$\vec{AC} = \vec{BD} \Rightarrow x - y = ?$$

- A) 13 B) 10 C) 9 D) 8 E) 3

3.  $\vec{V} = (-8, -16)$  ise

I.  $3\vec{V} = (-24, -48)$

II.  $\frac{\vec{V}}{4} = (-2, -4)$

III.  $\frac{\vec{V}}{8} = (1, -2)$

hangisi doğrudur ? / Which is true ?

- A) I ve II B) yalnız II C) I ve III  
D) II ve III E) I, II, III

4.  $\vec{A} = (-3, -4)$   $\vec{B} = (2, -9)$   $\vec{U} = (6, y+1)$

$$\vec{AB} // \vec{U} \Rightarrow y = ?$$

- A) 14 B) 10 C) -9 D) -7 E) -8

5.  $\vec{U} = (3, -7)$   $\vec{V} = (x-9, -6)$   $\vec{U} \perp \vec{V} \Rightarrow x = ?$

- A) -5 B)  $-\frac{48}{7}$  C) -7 D) -8 E) -9

6.  $\vec{U} = (2, -2)$

$$\vec{V} = (6, -4)$$

$$\Rightarrow \langle \vec{U}, \vec{V} \rangle = ?$$

- A) 0 B) -4 C) 4 D) 10 E) 20

7.  $|\vec{U}| = 8$ ,  $|\vec{V}| = 16$  U ile V arasındaki açı  $135^\circ$

Since the angle between U and V is  $135^\circ$  degrees

$$\Rightarrow \langle \vec{U}, \vec{V} \rangle = ?$$

- A)  $-32\sqrt{2}$  B)  $-64\sqrt{2}$  C)  $32\sqrt{2}$   
D)  $64\sqrt{2}$  E)  $108\sqrt{2}$

8. ABCD paralelkenar  
ABCD parallelogram

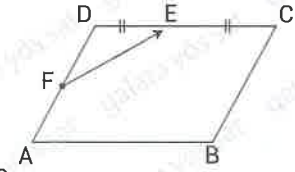
$$|DF| = 3|AF|$$

$$|DE| = |EC|$$

$\vec{FE}$ ' nün  $\vec{AB}$  ve  $\vec{BC}$  cinsinden değeri nedir ?

What is  $\vec{FE}$  in terms of  $\vec{AB}$  and  $\vec{BC}$ ?

- A)  $\frac{3\vec{BC}}{4} + \frac{\vec{AB}}{2}$  B)  $\frac{3\vec{BC}}{4} + \frac{\vec{BA}}{2}$  C)  $\frac{3\vec{BC}}{4} + \frac{4\vec{AB}}{3}$   
D)  $3\vec{AB} - 4\vec{AB}$  E)  $\frac{\vec{BC}}{4} + \frac{3\vec{AB}}{4}$



9.  $\vec{U} = (9, -2)$

$$\vec{V} = (7, 24)$$

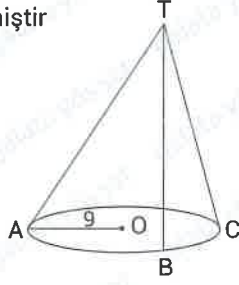
$\vec{U}$  vektörünün  $\vec{V}$  üzerindeki dik izdüşüm vektörünün uzunluğu nedir ?

What is the length of the vertical projection vector of the vector  $\vec{U}$  on  $\vec{V}$ ?

- A)  $\frac{1}{5}$  B)  $\frac{2}{5}$  C)  $\frac{3}{5}$  D)  $\frac{4}{5}$  E) 1

10. Şekilde dik koni verilmiştir  
Right cone is given

$$\begin{aligned} |TB| &= 15 \\ |AO| &= 9 \\ V_{\text{koni}} &= ? \\ V_{\text{cone}} &= ? \end{aligned}$$



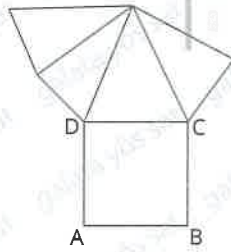
- A)  $1300\pi$       B)  $321\pi$       C)  $324\pi$   
D)  $350\pi$       E)  $364\pi$

11.  $\vec{A} = (2,9)$   $\vec{B} = (-1,5)$  olduğuna göre  $|\vec{AB}| = ?$

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

12. Yanda açılımı verilen ve taban alanı  $36 \text{ br}^2$  olan kare piramidin açılımının çevresi  $60 \text{ br}$  ise bu piramidin yüksekliği nedir ?

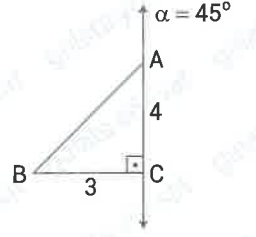
If the circumference of the opening of the square pyramid with a base area of  $36 \text{ br}^2$  is  $60 \text{ br}$ , what is the height of the pyramid?



- A)  $\sqrt{14}$       B)  $2\sqrt{14}$       C)  $3\sqrt{14}$   
D)  $5\sqrt{14}$       E)  $6\sqrt{14}$

13. Şekildeki ABC dik üçgeni  $|AC|$  kenarı boyunca  $45^\circ$  döndürülüyor. Oluşan şeklin hacmi nedir ?

The right triangle ABC in the figure is rotated 45 degrees along the  $|AC|$  side. What is the volume of the formed shape?

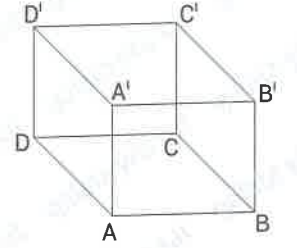


- A)  $2\pi$       B)  $\frac{3\pi}{2}$       C)  $\frac{7}{2}\pi$   
D)  $4\pi$       E)  $\frac{9}{2}\pi$

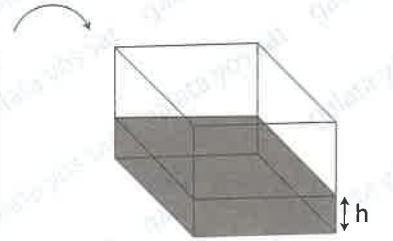
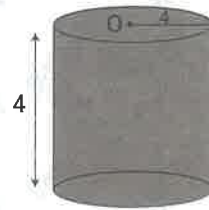
14.  $(ABCD, A'B'C'D')$  dikdörtgen prizmanın yüzey alanları 20, 24 ve 30' dur. Bu durumda  
The surface areas of the rectangular prism are 20, 24 and 30.

$$\begin{aligned} V_{\text{prizma}} &= ? \\ V_{\text{prism}} &= ? \end{aligned}$$

- A) 100      B) 110      C) 120      D) 140      E) 150



- 15.



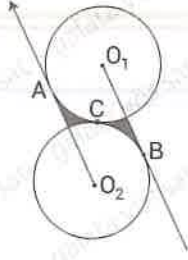
İçi su dolu olan silindir, taban çevresi 32 cm olan kare prizmaya boşaltılıyor. Son durumda su kare prizmada ne kadar yükselir ( $h = ?$ )

The cylinder filled with water is discharged into a square prism with a base circumference of 32 cm. In the last case, how much does water rise in a square prism ( $h = ?$ )

- A)  $\pi$       B)  $2\pi$       C)  $3\pi$       D)  $4\pi$       E)  $5\pi$

16.  $O_1$  ve  $O_2$  merkezli eş daireler birbirlerine C 'de teğettir. A ve B teğet noktalar

$O_1$  and  $O_2$  centered concentric circles are tangent to each other at C. A and B: tangent points



$\zeta(AO_1BO_2) = 8 + 8\sqrt{3}$

TA = ?

Shaded area = ?

- A)  $12\sqrt{3} - 4\pi$     B)  $12\sqrt{3} + 4\pi$     C)  $16\sqrt{3} - 8\pi$   
 D)  $16\sqrt{3} - 4\pi$     E)  $16\sqrt{3} - 2\pi$

17.  $x, y \in \mathbb{R}$

$A = \{(x, y) \mid 9 \leq x^2 + (y-3)^2 \leq 25\}$

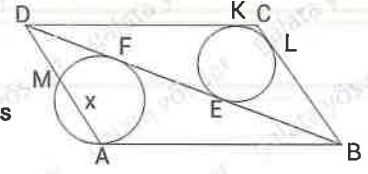
denklemin belirli bölgenin grafigini aşağıdakilerden hangisidir ?

Which of the following is the graph of the particular region of the equation ?

- A)    B)   
 C)    D)   
 E)

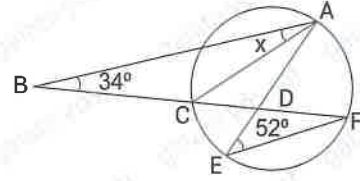
18. ABCD paralelkenar ABCD paralelkenar

A, E, F, K, L teğet noktası  
 A, E, F, K, L: tangent points  
 $|EF| = 2$   
 $|DF| = 4$   
 $|BE| = 5$   
 $|MA| = x = ?$



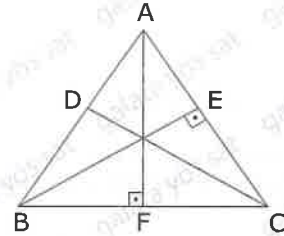
- A)  $\frac{42}{5}$     B)  $\frac{10}{3}$     C)  $\frac{112}{11}$     D) 11    E) 9

19.  $m(\widehat{ABF}) = 34^\circ$   
 $m(\widehat{AEF}) = 52^\circ$   
 $m(\widehat{BAC}) = x = ?$



- A) 17    B) 18    C) 26    D) 34    E) 42

20.  $[AF] \perp [BC]$   
 $[BE] \perp [AC]$   
 $|BE| = h_b$   
 $|AF| = h_a$   
 $|AB| > |BC| > |AC|$   
 olduğuna göre  $h_a, h_b, h_c$  arasındaki bağıntı ?



Relation between  $h_a, h_b, h_c$

- A)  $h_c < h_a < h_b$     B)  $h_c < h_b < h_a$   
 C)  $h_a < h_b < h_c$     D)  $h_b < h_a < h_c$   
 E)  $h_a < h_c < h_b$

KTS 1	IQ						Matematik / maths						Geometri / Geometry			
1	D	11	C	21	B	1	B	11	E	21	B	1	C	11	B	
2	D	12	E	22	B	2	E	12	A	22	B	2	D	12	B	
3	A	13	E	23	A	3	C	13	D	23	D	3	A	13	B	
4	B	14	C	24	D	4	B	14	A	24	A	4	A	14	B	
5	C	15	A	25	B	5	C	15	C	25	A	5	A	15	C	
6	E	16	D	26	C	6	D	16	D	26	D	6	E	16	C	
7	D	17	D	27	E	7	D	17	B	27	E	7	B	17	E	
8	B	18	A	28	B	8	D	18	B	28	B	8	A	18	E	
9	B	19	C	29	C	9	C	19	B	29	C	9	D	19	A	
10	A	20	C	30	A	10	B	20	D	30	B	10	A	20	D	

KTS 2	IQ						Matematik / maths						Geometri / Geometry			
1	A	11	D	21	E	1	C	11	D	21	A	1	C	11	A	
2	E	12	A	22	A	2	A	12	E	22	D	2	D	12	A	
3	C	13	C	23	A	3	C	13	D	23	A	3	A	13	D	
4	B	14	A	24	A	4	A	14	D	24	A	4	A	14	E	
5	D	15	E	25	B	5	C	15	C	25	A	5	A	15	B	
6	B	16	D	26	C	6	D	16	C	26	D	6	E	16	A	
7	A	17	C	27	B	7	D	17	A	27	C	7	B	17	D	
8	C	18	C	28	E	8	A	18	B	28	C	8	D	18	E	
9	E	19	D	29	E	9	C	19	B	29	A	9	A	19	C	
10	E	20	D	30	A	10	B	20	E	30	D	10	E	20	D	

KTS 3	IQ						Matematik / maths						Geometri / Geometry			
1	C	11	C	21	D	1	A	11	D	21	E	1	C	11	C	
2	D	12	E	22	D	2	D	12	A	22	E	2	B	12	A	
3	A	13	E	23	C	3	C	13	C	23	E	3	D	13	B	
4	C	14	C	24	D	4	C	14	A	24	E	4	C	14	A	
5	E	15	D	25	B	5	D	15	A	25	A	5	E	15	D	
6	A	16	D	26	C	6	A	16	B	26	E	6	D	16	D	
7	A	17	A	27	B	7	A	17	C	27	D	7	D	17	B	
8	C	18	A	28	D	8	E	18	B	28	B	8	E	18	A	
9	B	19	E	29	B	9	E	19	E	29	C	9	A	19	B	
10	D	20	B	30	E	10	E	20	A	30	C	10	E	20	A	

KTS 4	IQ						Matematik / maths						Geometri / Geometry			
1	B	11	D	21	E	1	C	11	C	21	D	1	D	11	D	
2	A	12	D	22	A	2	B	12	D	22	A	2	D	12	E	
3	C	13	E	23	C	3	C	13	D	23	D	3	D	13	B	
4	D	14	D	24	E	4	D	14	B	24	C	4	B	14	B	
5	E	15	C	25	B	5	A	15	E	25	C	5	A	15	D	
6	A	16	D	26	D	6	C	16	B	26	B	6	B	16	C	
7	C	17	A	27	D	7	C	17	C	27	C	7	C	17	D	
8	A	18	D	28	D	8	B	18	B	28	E	8	E	18	D	
9	C	19	B	29	E	9	C	19	D	29	E	9	A	19	A	
10	E	20	C	30	B	10	D	20	E	30	C	10	B	20	E	

IQ						Matematik / maths						Geometri / Geometry				
KTS 5 Cevap Anahtarı \ Answer key	1	A	11	A	21	E	1	D	11	C	21	B	1	E	11	A
	2	D	12	B	22	D	2	B	12	C	22	A	2	D	12	D
	3	B	13	C	23	A	3	B	13	A	23	C	3	B	13	D
	4	E	14	E	24	C	4	A	14	E	24	B	4	A	14	C
	5	C	15	C	25	C	5	D	15	C	25	C	5	D	15	D
	6	B	16	A	26	D	6	A	16	D	26	D	6	A	16	C
	7	C	17	B	27	A	7	B	17	A	27	C	7	B	17	A
	8	D	18	E	28	A	8	B	18	E	28	C	8	B	18	D
	9	B	19	A	29	C	9	B	19	E	29	D	9	C	19	B
	10	E	20	A	30	C	10	D	20	D	30	B	10	E	20	E

IQ						Matematik / maths						Geometri / Geometry				
KTS 6 Cevap Anahtarı \ Answer key	1	D	11	D	21	B	1	C	11	E	21	C	1	C	11	B
	2	E	12	D	22	A	2	D	12	D	22	D	2	C	12	C
	3	B	13	A	23	D	3	D	13	C	23	D	3	B	13	D
	4	C	14	B	24	A	4	A	14	D	24	E	4	C	14	C
	5	C	15	C	25	A	5	B	15	E	25	E	5	B	15	E
	6	D	16	E	26	D	6	D	16	C	26	C	6	C	16	C
	7	C	17	C	27	A	7	C	17	A	27	D	7	B	17	D
	8	B	18	B	28	E	8	C	18	E	28	B	8	B	18	E
	9	A	19	C	29	C	9	D	19	E	29	C	9	A	19	B
	10	E	20	A	30	B	10	A	20	B	30	A	10	E	20	C

IQ						Matematik / maths						Geometri / Geometry				
KTS 7 Cevap Anahtarı \ Answer key	1	A	11	A	21	D	1	D	11	B	21	C	1	A	11	D
	2	C	12	E	22	E	2	B	12	B	22	A	2	E	12	D
	3	B	13	E	23	E	3	E	13	E	23	E	3	E	13	E
	4	A	14	A	24	D	4	C	14	B	24	C	4	C	14	B
	5	C	15	E	25	C	5	E	15	D	25	C	5	D	15	E
	6	E	16	E	26	C	6	D	16	B	26	B	6	E	16	D
	7	A	17	C	27	C	7	C	17	A	27	A	7	B	17	B
	8	B	18	B	28	A	8	B	18	C	28	A	8	D	18	D
	9	D	19	A	29	B	9	C	19	A	29	D	9	B	19	B
	10	C	20	C	30	B	10	B	20	A	30	B	10	B	20	D

IQ						Matematik / maths						Geometri / Geometry				
KTS 8 Cevap Anahtarı \ Answer key	1	C	11	E	21	D	1	A	11	C	21	B	1	D	11	A
	2	A	12	E	22	B	2	E	12	B	22	C	2	A	12	E
	3	D	13	B	23	C	3	D	13	E	23	A	3	B	13	C
	4	B	14	A	24	C	4	A	14	E	24	D	4	D	14	E
	5	C	15	E	25	B	5	A	15	B	25	D	5	A	15	C
	6	C	16	D	26	C	6	C	16	C	26	A	6	C	16	D
	7	E	17	B	27	D	7	E	17	D	27	D	7	C	17	E
	8	A	18	A	28	A	8	B	18	D	28	D	8	D	18	D
	9	B	19	A	29	E	9	B	19	A	29	E	9	A	19	C
	10	D	20	E	30	D	10	B	20	E	30	C	10	D	20	D