

نمونه سوال یوس دانشگاه دوزجه



Duzce University

INTERNATIONAL STUDENTS' EXAM

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T.C.
DÜZCE ÜNİVERSİTESİ
YURTDIŞINDAN ÖĞRENCİ SEÇME SINAVI
GEÇMİŞ SINAVLARDA ÇIKMIŞ SORULAR

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

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

$$\frac{\sqrt{169} + \sqrt{25}}{\sqrt{1,44} - 3\sqrt{0,09} + \sqrt{0,04}} = ?$$

- A) 9 B) 18 C) 27 D) 36 E) 40

$$\frac{3^{x-1} + 3^x}{4 \cdot 3^{x-1}} + \frac{2^x - 2^{x-1}}{2^{x-2}} = ?$$

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

$$a < 0 < b$$

$$\frac{\sqrt{a^2} + \sqrt[3]{b^3} + \sqrt[3]{(a-b)^3}}{\sqrt[3]{a^3} + \sqrt{(a-b)^2}} = ?$$

- A) 0 B) 1 C) $\frac{2a}{2a-b}$ D) $\frac{2a-2b}{2a-b}$ E) $\frac{2b}{2b-a}$

$$9^n = 8$$

$$2^m = 27$$

$$25^{m.n} = ?$$

$$\text{A)} 5^2$$

$$\text{B)} 5^4$$

$$\text{C)} 5^5$$

$$\text{D)} 5^7$$

$$\text{E)} 5^9$$

$$x^2 - 2x - 4 = 0 \text{ denkleminin iki kökü } x_1 \text{ ve } x_2 \text{ olmak üzere } x_1^3 + x_2^3 \text{ kaçtır?}$$

$$(\text{Let } x_1 \text{ and } x_2 \text{ be the roots of the equation } x^2 - 2x - 4 = 0. \text{ What is } x_1^3 + x_2^3?)$$

$$\text{A)} 8$$

$$\text{B)} 16$$

$$\text{C)} 32$$

$$\text{D)} 64$$

$$\text{E)} 128$$

$$\frac{a^2 - b^2}{(a+b)^2 - 4ab} : \frac{a^3 + 2a^2b + ab^2}{a^2b - b^2a} = ?$$

$$\text{A)} \frac{b}{a+b}$$

$$\text{B)} \frac{1}{a+b}$$

$$\text{C)} \frac{a+b}{b}$$

$$\text{D)}$$

$$\text{E)} \frac{1}{a-b}$$

$$f(x) = 2x - 3$$

$$(f \circ g^{-1})(x) = \frac{x+1}{3}$$

$$g(x) = ?$$

$$\text{A)} 6x - 10$$

$$\text{B)} \frac{x+10}{3}$$

$$\text{C)} 6x + 10$$

$$\text{D)} \frac{x+10}{6}$$

$$\text{E)} 3x - 10$$

$$x < 0, y < 0, z < 0$$

$$\frac{x}{2} = \frac{y}{3} = \frac{z}{5}$$

$$x^2 + y^2 + z^2 = 152$$

$$x + y + z = ?$$

$$\text{A)} 10$$

$$\text{B)} 15$$

$$\text{C)} 20$$

$$\text{D)} -10$$

$$\text{E)} -20$$

$$\frac{(n+1)!(3n-1)!}{(n-1)!(3n)!} = \frac{4}{3} \text{ isen kaçtır? (If } \frac{(n+1)!(3n-1)!}{(n-1)!(3n)!} = \frac{4}{3} \text{ then what is } n ?)$$

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

5 öğretmen ve 4 doktor arasından 3 kişilik bir grup oluşturulacaktır. Bu grupta en az 2 öğretmen olma olasılığı nedir?

(Out of 5 teachers and 4 doctors, a group consisting of 3 persons will be formed. What is the probability of at least two teachers being in this group?)

- A) $\frac{5}{42}$ B) $\frac{5}{21}$ C) $\frac{5}{14}$ D) $\frac{10}{21}$ E) $\frac{25}{42}$

Reel sayılar kümesinde tanımlanan Δ işlemi için $x\Delta y = x.y + 2(y\Delta x)$ olduğuna göre $(2\Delta 1) = ?$

(Let Δ be an operation on real number with $x\Delta y = x.y + 2(y\Delta x)$. What is $(2\Delta 1)$?)

- A) $-\frac{4}{3}$ B) -3 C) -2 D) $\frac{6}{5}$ E) 2

$$y - z = 5 \quad y - x = 2 \quad x^2 + z^2 - 2z + 2y - 2xz = ?$$

- A) -1 B) -7 C) 11 D) 19 E) 21

$$\sum_{k=1}^{32} \log_4 2^k = ?$$

- A) 268 B) 264 C) 256 D) 252 E) 248

$$i^2 = -1 \quad i^{150} + i^{5-12n} + i^{200+8n} = ?$$

- A) -1 B) 1 C) $-i$ D) i E) 0

$$\sin x - \cos x = \sqrt{3} \Rightarrow \cos 4x = ?$$

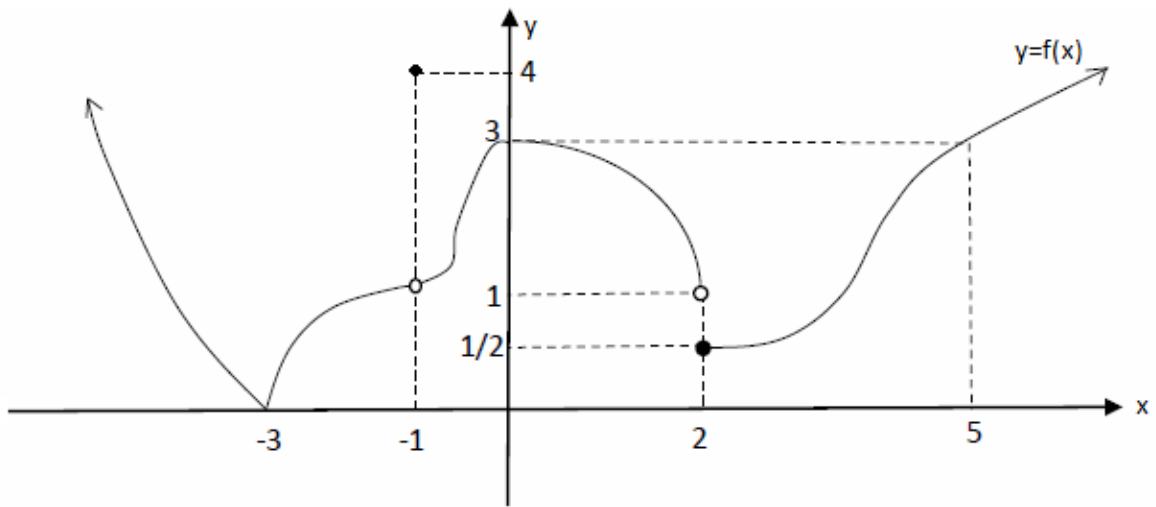
- A) -31 B) -7 C) 0 D) 7 E) 31

$$f(x) = \frac{2x-3}{4x+3} \Rightarrow \lim_{x \rightarrow 2} \frac{f(x)-f(2)}{x-2} = ?$$

- A) $\frac{18}{121}$ B) $\frac{19}{100}$ C) $\frac{20}{121}$ D) $\frac{7}{48}$ E) $\frac{21}{145}$

$$\lim_{x \rightarrow 3} \frac{(x^3 - 9x) \cos(x\pi)}{x^2 - 2x - 3} = ?$$

- A) -6 B) $-\frac{9}{2}$ C) -3 D) 0 E) $\frac{9}{2}$



$f(x)$ fonksiyonunun süreksiz olduğu noktalar kümesi aşağıdakilerden hangisidir?

(What are the points around $f(x)$ where the function is discontinuous?)

- A) {2} B) {2,5} C) {-1,2} D) {-1,2,5} E) {-3,-1,2}

$$2x^2 - 3xy + 4y^2 = 0 \Rightarrow \frac{dy}{dx} \Big|_{(1,-2)} = ?$$

A) $\frac{11}{14}$

B) $\frac{10}{19}$

C) $-\frac{4}{13}$

D) $\frac{2}{13}$

E) $\frac{7}{18}$

$$f(x) = \ln(\cos^2 3x) \Rightarrow f' \left(\frac{\pi}{12} \right) = ?$$

A) -6

B) $-3\sqrt{2}$

C) 0

D) 3

E) 6

$$\int_0^1 x^3(1+x^4)dx = ?$$

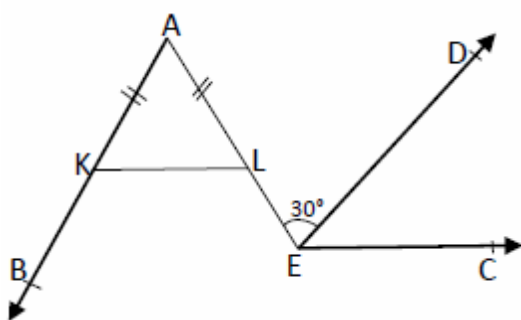
A) $-\frac{3}{8}$

B) $-\frac{7}{12}$

C) $\frac{3}{8}$

D) $\frac{1}{8}$

E) $-\frac{1}{12}$



$$[KL] // [EC]$$

$$m(\widehat{AED}) = 30^\circ$$

$$|AK| = |AL|$$

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

$$[AB] // [ED]$$

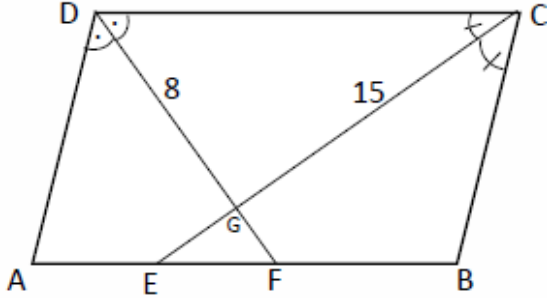
A) 80

B) 75

C) 70

D) 60

E) 50



ABCD bir paralelkenar (parallelogram)

[DF] açıortay (bisector)

[CE] açıortay (bisector)

$|DG| = 8\text{cm}$, $|CG| = 15\text{ cm}$, $|EF| = 5\text{ cm}$

$|BC| = ?$

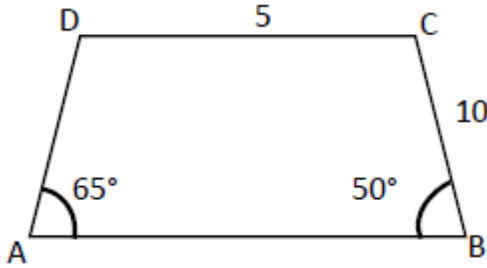
A) 6

B) 8

C) 10

D) 11

E) 12



ABCD bir yamuk (trapezoid)

$m(\widehat{DAB}) = 65^\circ$ $m(\widehat{ABC}) = 50^\circ$

$|BC| = 10\text{cm}$

$|DC| = 5\text{cm}$

$|AB| = ?$

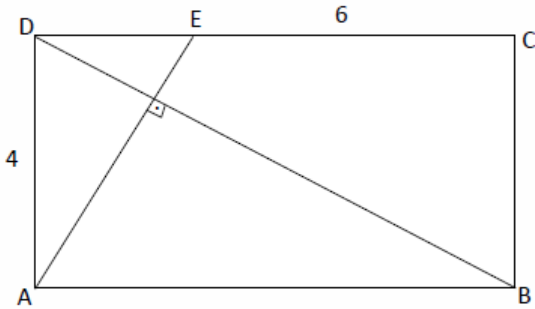
A) 35

B) 30

C) 25

D) 20

E) 15



ABCD bir dikdörtgen (rectangle)

$[DB] \perp [AE]$

$|DA| = 4\text{cm}$

$|EC| = 6\text{cm}$

Alan(ABCD) = ? (Area(ABCD) = ?)

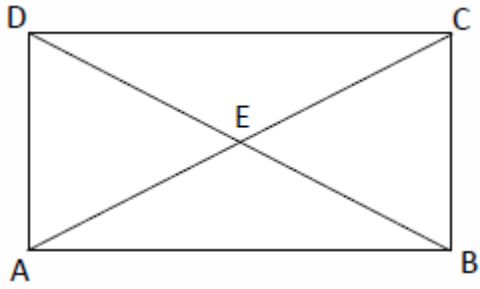
A) 24

B) 28

C) 32

D) 40

E) 56



ABCD bir dörtgen (quadrangle)

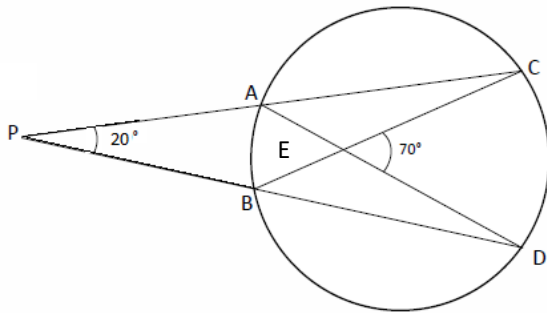
Alan(ADE) = 8 cm² (Area(ADE) = 8 cm²)

$$3|DE| = 4|EB|$$

$$2|AE| = |EC|$$

Alan(ABC) = ? (Area(ABC) = ?)

- A) 48 B) 30 C) 24 D) 20 E) 18



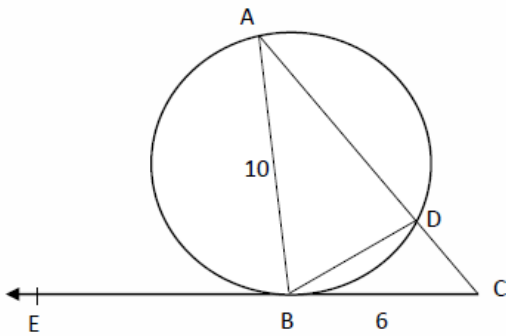
$$m(\widehat{CPD}) = 20^\circ$$

$$m(\widehat{CED}) = 70^\circ$$

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

$$m(\widehat{AB}) = yy = ?$$

- A) 50 B) 55 C) 60
D) 65 E) 70



[CE, B noktasında çembere teğettir ([CE is tangent to the circle at B).

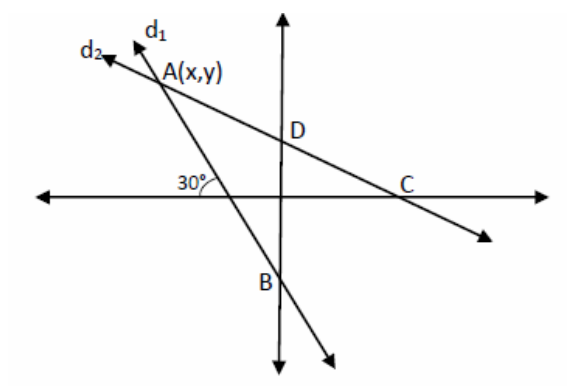
$$|AB| = 10\text{cm}, |BC| = 6\text{ cm}$$

$$|CD| = 4\text{cm}$$

$$|BD| = ?$$

A, B, D çember üzerinde (on the circle)

- A) 10 B) $\frac{12}{5}$ C) $\frac{10}{3}$ D) 15 E) $\frac{20}{3}$



- A) 9 B) $-3\sqrt{3}$ C) $-2\sqrt{3}$ D) -9

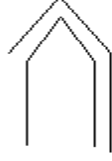
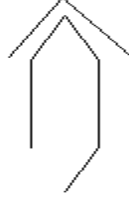
d_1 doğrusuyla d_2 doğrusunun kesim noktası $A(x, y)$ olsun (Let $A(x, y)$ be the intersection point of the lines d_1 and d_2)

$$|OB| = |OD| = \sqrt{3}\text{cm}$$

$$|OC| = 9\text{cm}$$

$$x = ?$$

- E) $2\sqrt{3}$



?

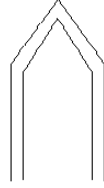
Yukarıdaki üç şekli hangisi takip etmelidir? (Which one should come after these 3 figures above?)



A)



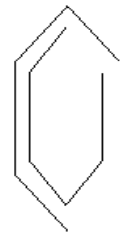
B)



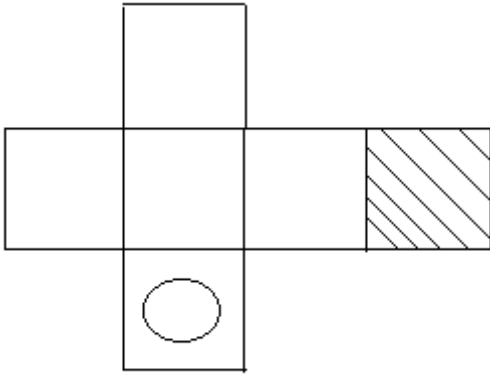
C)



D)

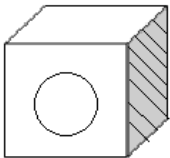


E)

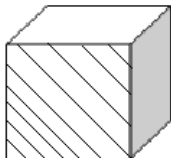


Yukarıdaki açık şekli katladığınızda hangi küp meydana gelir?

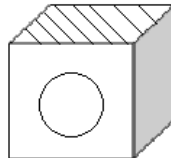
(Which cube is formed when you fold the open figure above?)



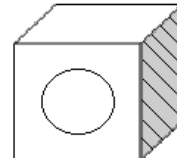
A)



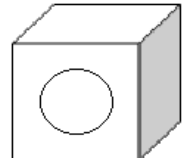
B)



C)



D)



E)



Şekil 1



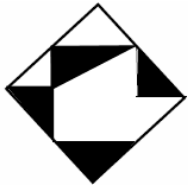
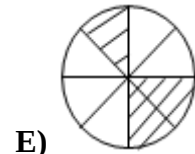
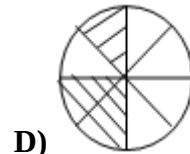
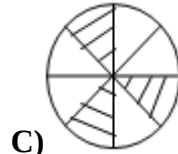
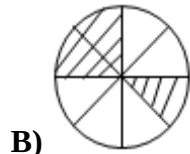
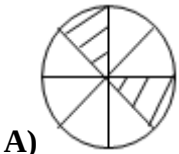
Şekil 2

Figure 1

Figure 2

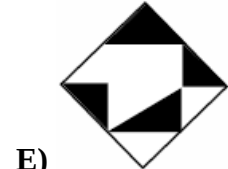
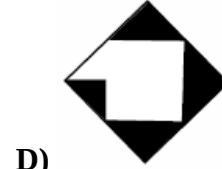
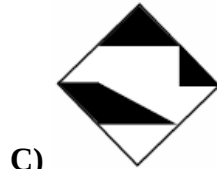
Şekil 1'i elde etmek için aşağıdakilerden hangisi Şekil 2'nin üstüne konmalıdır?

(Which one of the figures below should be put over Figure 2 obtain Figure 1?)



Yukarıdaki şekil 180 derece döndürüldüğünde hangi şekil elde edilir?

(Which figure is obtained by rotating the figure above 180 degrees?)



Aşağıdaki dizilerden hangisi diğerlerinden farklıdır? (Which series below is different than the others?)



İstiklal Marşı'nın şairi kimdir?

Who is the poet of the Turkish National Anthem?

- A) Ziya Gökalp
- B) Mehmet Akif Ersoy
- C) Reşat Nuri Güntekin
- D) Orhan Veli Kanık
- E) Yahya Kemal Beyatlı

Türkiye'nin aşağıdaki hangi örgüte üyeliği bulunmaktadır?

Which one of the following organizations is Turkey a member of?

- A) NATO
- B) OPEC
- C) G-8 Birliği(union)
- D) BDT (Independentstatecommunity)
- E) Avrupa Birliği (Europeanunion)

Türkiye Cumhuriyeti'nin kurucusu kimdir?

Who is the founder of the Republic of Turkey?

- A) İsmet İnönü
- B) Mustafa Kemal Atatürk
- C) Celal Bayar
- D) Adnan Menderes
- E) Cemal Gürsel

Yaptığı referandum ile Avrupa birliğinden ayrılma kararı alan (brexit) ada ülkesi hangisidir?

Which one of the followings is the island country that decided to leave the European Union (brexit) with a referendum?

- A) İngiltere
- B) Norveç
- C) İzlanda
- D) İtalya
- E) İsviçre