یونی لند
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همراه شما
در مسیر یوس

سوالات یوس ۲۰۱۸

دانشگاه جمهوریت

Sivas Cumhuriyet University

INTERNATIONAL STUDENTS' EXAM

uniland.ir

۰۲۱۹۱۳۰۵۹۰۵

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A

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

A) $\frac{1}{2}$ B) $\frac{5}{6}$ C) $\frac{1}{4}$ D) $\frac{1}{6}$ E) $\frac{1}{12}$

2. $\frac{1}{4}-\frac{3}{2}:\frac{2}{3}+\frac{5}{8}=?$

A) $-\frac{5}{4}$ B) $-\frac{7}{8}$ C) $-\frac{5}{1}$ D) $-\frac{11}{8}$ E) $\frac{5}{6}$

3. $\frac{0,13}{1,3}+\frac{0,53}{5.3}-\frac{1,7}{3,4}=?$

A) $\frac{39}{2}$ B) $\frac{21}{2}$ C) $-\frac{7}{10}$ D) $\frac{5}{2}$ E) $-\frac{3}{10}$

4. $a=\sqrt{3}+1 \quad b=\sqrt{3}-1 \quad \Rightarrow \quad \frac{a}{b}+\frac{b}{a}=?$

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

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5. $\sqrt{(-3)^2} - \sqrt[3]{(-2)^3} + \sqrt{19} = ?$

A) 8 B)12 C) 2 D) -2 E) -12

6. $A = [-2, 4)$, $B = (1, 8]$ $\Rightarrow$ $A \cap B = ?$

A) $[-2, 8]$ B) $(1, 4)$ C) $[-2, 1)$ D) $(1, 4)$ E) $[4, 8]$

7. $(1 - \sqrt{x})(1 + \sqrt{x})(1 + x)(1 + x^2) + 15 = 0$

$\Rightarrow$ x' in alacağı değerler çarpımı kaçtır?

If $(1 - \sqrt{x})(1 + \sqrt{x})(1 + x)(1 + x^2) + 15 = 0$

then what is the multiplication of values of x?

A) 0 B) 2 C) 4 D) -2 E) -4

8. f sabit fonksiyon ve $f(x) = \dfrac{(a-2)x + 4}{2x + 8}$ $\Rightarrow$ $a = ?$

If f *is a constant function and* $f(x) = \dfrac{(a-2)x + 4}{2x + 8}$ *then* $a = ?$

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

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9. $f(x) = 2^x$ ise

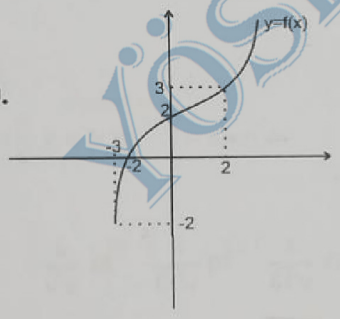
$f(x+3)$ ün $f(x)$ cinsinden değeri nedir?

If $f(x) = 2^x$

, find definition of $f(x+3)$ *as a function of* $f(x)$.

A) $3f(x)$ B) $8f(x)$ C) $4f(x)$ D) $6f(x)$ E) $f(x)+3$

10.



$$\frac{f(0)+f(2)-f^{-1}(2)}{f^{-1}(0)+f^{-1}(-2)} = ?$$

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

11. $x^2 - x - 5 = 0$ denkleminin kökleri x_1 ve x_2 ise $\frac{x_1}{x_2} + \frac{x_2}{x_1} = ?$

Let x_1 *and* x_2 *be the roots of* $x^2 - x - 5 = 0$.

solve $\frac{x_1}{x_2} + \frac{x_2}{x_1} = ?$

A) $-\frac{1}{5}$ B) $-\frac{11}{5}$ C) $\frac{1}{5}$ D) $-\frac{9}{5}$ E) $\frac{11}{5}$

12. $(2x-1)(x-2) + (2-x)(x+3) = 0$ denkleminin çözüm kümesi nedir?

Find the solution set of

$(2x-1)(x-2) + (2-x)(x+3) = 0$

A) $\{2\}$ B) $\{2,4\}$ C) $\{4\}$ D) $\varnothing$ E) $\mathbb{R}$

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13. $5 - \dfrac{6}{1 + \dfrac{3}{x-4}} = 2 \quad \Rightarrow \quad x = ?$

A) 1 B) 4 C) 7 D) 6 E) -4

14. $\frac{1}{3} + b = \frac{1}{4} - a$ ve $a - b = \frac{1}{6} \quad \Rightarrow \quad a = ?$

$\frac{1}{3} + b = \frac{1}{4} - a$ ***and*** $a - b = \frac{1}{6} \quad \Rightarrow \quad a = ?$

A) $-\dfrac{1}{24}$ B) $\dfrac{1}{12}$ C) $\dfrac{1}{24}$ D) 1 E) -2

15. $P(x-2) = x^2 + ax - 4$ polinomunun bir çarpanı $x + 3$ isc $a = ?$

If $x + 3$ ***is a multiplier*** $P(x-2) = x^2 + ax - 4$, $a = ?$

A) -3 B) $\frac{5}{3}$ C) 0 D) 2 E) -1

16. $2\sin x - 3\cos x = 0 \quad \Rightarrow \cos x = ? \quad (0 \le x \le \dfrac{\pi}{2})$

A) $\dfrac{2}{3}$ B) $\dfrac{3}{2}$ C) $\dfrac{2}{\sqrt{13}}$ D) $\dfrac{3}{\sqrt{13}}$ E) $\dfrac{2}{\sqrt{5}}$

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CÜYÖS 2018

17. $10x = \pi \quad \Rightarrow \quad \dfrac{\sin 3x \tan 4x}{\cot x \sin 7x} = ?$

A) 0 B) -1 C) $\frac{\pi}{10}$ D) 1 E) 2

18. $\sin(\arccos\frac{4}{5}) = ?$

A) $\frac{4}{5}$ B) $\frac{5}{4}$ C) 0 D) $\frac{3}{5}$ E) $\frac{3}{4}$

19. $1 + i + i^2 + i^3 + \ldots + i^{99} = ? \qquad (\sqrt{-1} = i)$

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

20. $z = 3 - \sqrt{2}i \quad \Rightarrow \quad \overline{z^{-1}} = ?$

A) $3+\sqrt{2}i$ B) $3-\sqrt{2}i$ C) $\frac{3}{11}+\frac{\sqrt{2}}{11}i$

D) $\frac{3}{11}-\frac{\sqrt{2}}{11}i$ E) $\frac{3}{2}-\frac{\sqrt{2}}{5}i$

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21. $\ln 3 + \ln 3a = \ln 2b - 3\ln 2$ olduğuna göre $\frac{b}{a}$ aşağıdakilerden hangisidir?

If $\ln 3 + \ln 3a = \ln 2b - 3\ln 2$, ***find*** $\frac{b}{a} = ?$

A) 2 B) 16 C) 32 D) 36 E) 72

22. $\ln 3 = x$ ve $\ln 5 = y$ ise $\log_{81} 125$ ifadesinin x ve y türünden değeri aşağıdakilerden hangisidir?

If $\ln 3 = x$ ***and*** $\ln 5 = y$, ***express*** $\log_{81} 125$ ***in terms at*** x ***and*** y ?

A) $\frac{3y}{4x}$ B) $12xy$ C) $\frac{4x}{3y}$ D) xy E) $4x - 3y$

23. $f(x) = \log_2(5-x) + \log_3(x-3)$ fonksiyonunun en geniş tanım kümesi aşağıdakilerden hangisidir?

Find the largest domain of $f(x) = \log_2(5-x) + \log_3(x-3)$

A) $(3, \infty)$ B) $(-\infty, 5]$ C) $(3, 5)$ D) $[3, 5)$ E) $(3, 5]$

24. (a_n) bir geometrik dizi,

$a_4 = 5, \quad a_7 = 40 \quad \Rightarrow \quad a_{11} = ?$

Let (a_n) ***be a geometric sequence.***

If $a_4 = 5, \quad a_7 = 40 \quad \Rightarrow \quad a_{11} = ?$

A) 80 B) 160 C) 320 D) 640 E) 1280

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25. $S_n = \sum_{k=1}^{n} a_n = n^2 + 4n + 1$ olduğuna göre $a_5 = ?$

Let $S_n = \sum_{k=1}^{n} a_n = n^2 + 4n + 1$ *, find* $a_5 = ?$

A) 5 B) 13 C) 22 D) 33 E) 46

26. $\lim_{x \to 1} \left(x^2 c^{|x^2-1|} + |x+2| \sin \pi x \right) = ?$

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

27. $\lim_{x \to 0} \left(\frac{\sin^2 4x}{x^2 \cos 2x} \right) = ?$

A) 0 B) 4 C) 8 D) 16 E) 32

28. $\lim_{x \to 0^+} \left(3 + 3^{-\frac{1}{x}} \right)^{-1} = ?$

A) $-\frac{1}{3}$ B) 0 C) $\frac{1}{6}$ D) $\frac{1}{3}$ E) 3

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29. $\lim\limits_{x\to 2}\left(\dfrac{\sqrt{3x+a}-4}{x^2-4}\right)$ limitinin bir gerçel değeri varsa a sayısı aşağıdakilerden hangisi olmalıdır?

If $\lim\limits_{x\to 2}\left(\dfrac{\sqrt{3x+a}-4}{x^2-4}\right)$ *has a real solution, find* $a=?$

A) 0 B) 2 C) 4 D) 8 E) 10

30. $f(x)=\dfrac{x-2}{2x^2-(m+1)x+2}$

fonksiyonu $\mathbb{R}$ de sürekli olduğuna göre m aşağıdakilerden hangisi olamaz?

If $f(x)=\dfrac{x-2}{2x^2-(m+1)x+2}$ *is continuous on* $\mathbb{R}$, *which of the followings can not be* m.

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

31. $f(x)=e^{2x}\sin 3x \Rightarrow f''(0)=?$

A) 4 B) 6 C) 12 D) -9 E) -5

32. $f(x)=x^3+ax^2-bx+4$ fonksiyonu
$x=1$ apsisli noktada yerel maksimuma,
$x=-1$ apsisli noktada dönüm noktasına sahipse
$a+b=?$

If $f(x)=x^3+ax^2-bx+4$ *has a local minimum on* $x=1$ *and a turning point on* $x=-1$ $a+b=?$

A) 15 B) 12 C) 9 D) 6 E) 3

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37. $\int_0^{\sqrt{\ln 2}} xe^{x^2}\,dx = ?$

A) 0 B) 1 C) $\frac{1}{2}$ D) $\frac{1}{4}$ E) $\frac{1}{6}$

38. $\int_{-1}^{2} |1-x^2|\,dx = ?$

A) $-\frac{8}{3}$ B) $-\frac{4}{3}$ C) 0 D) $\frac{4}{3}$ E) $\frac{8}{3}$

39. $\begin{vmatrix} 2015 & 2016 \\ 2017 & 2018 \end{vmatrix} = ?$

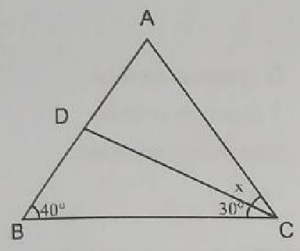
A) -3 B) -2 C) 0 D) 2 E) 3

40. $A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}, B = \begin{pmatrix} 2 & -4 \\ -3 & 1 \end{pmatrix} \Rightarrow Det(A^{-1}.B^T) = ?$

A) 3 B) 5 C) 0 D) -3 E) -5

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41.



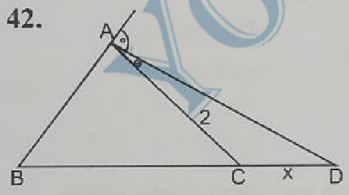
|AC| = |DC| ise

x=?

If |AC| = |DC|,
find x=?

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

42.

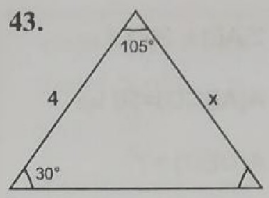


$\frac{|AB|}{|BD|} = \frac{1}{2}$

x=?

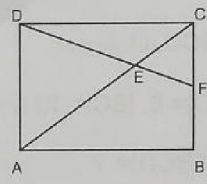
A) 2 B) 1 C) 4 D) 8 E) 6

43.



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

44.



ABCD diktörtgen

|AD|=10 |AE|=24 |EC|=12

ise |FB|=?

***If* ABCD *is a rectangle*, |AD|=10 |AE|=24 and |EC|=*12*,**
***find* |FB|=?**

A) 8 B) 6 C) 5 D) 4 E) 2

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CÜYÖS 2018

57. $\begin{array}{r} AB \\ \times\ 7 \\ \hline CAB \end{array}$ olduğuna göre A+B-C= ?

If $\begin{array}{r} AB \\ \times\ 7 \\ \hline CAB \end{array}$ *, find* A+B-C=?

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

123.....91011.....313233

1'den 33'e kadar olan doğal sayılar şekildeki gibi yazılarak n- basamaklı bir sayı elde ediliyor.

58. 59. ve 60. soruları buna göre cevaplayınız.

To obtain an n-digit number, natural numbers between 1 and 33 are written as

123.....91011.....313233

Solve the questions 58. 59. and 60. acoording to this.

58. n kaçtır?

Find n=?

A) 33 B) 42 C) 48 D) 57 E) 66

59. Sayının soldan 27. basamağında hangi rakam bulunur?

What is the 27th digit of the number.

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

60. Sayının sağdan 26. basamağında hangi rakam bulunur?

What is the 26th digit from the right hand side of the number.

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

CÜYÖS 2018 YOSBIL GI 2020

63. 246 167 325 459 5?8

Yukarıdaki sayılar kendi içlerinde bir kurala göre oluşturulmuşlardır. ? yerine aşağıdakilerden hangisi gelmelidir?

246 167 325 459 5?8

The number above are assigned to a specific rule. Which of the followings should replace "?" ?

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

64.

2 3 6 18 108 x

Yukarıdaki sayı dizisinde x aşağıdakilerden hangisidir?

Which one of the followings is the "x" in the number sequence.

A) 118 B) 1008 C) 1080 D) 1944 E) 1954

A B C Ç D E F G Ğ H I İ J K L M N O Ö P R S Ş T U Ü V Y Z

4 4 4 4

D=AĞ, P=LU, A=AA, Z=ZZ,...

Yukarıda bir harften eşit uzaklıkta harfler kullanılarak oluşturulan bir kodlama verilmiştir. Bu kodlama bir harfin yerine birden fazla yazım gelebilmektedir. Bu kodlama yardımı ile kelimeler türetiliyor. Örneğin;

S=PT , İ=IJ , V=TZ , A=AA , S=MY seçilirse

SİVAS = PTIJTZAAMY kodlaması elde edilebilir.

65. ve 66. soruları yukarıdaki bilgiye göre cevaplayınız.

A coding which is genarated by using the letters at the same distance from a letter is given above. In this coding, more than one writing may be used for one letter. With the help of this coding, words are generated such as,

if

S=PT , İ=IJ , V=TZ , A=AA and S=MY

the coding

SİVAS = PTIJTZAAMY

may be obtained

Solve the questions 65 and 66 according to these.

65. Yukarıda verilen kodlama yardımıyla CÜYÖS kelimesinin kodlaması aşağıdakilerden hangisi olabilir?

With the help of the coding given above, which of the followings might be the coding for "CÜYÖS" ?

A) BÇUVVZNRÖT B) ADTYVZMSRU C) BÇTYÜZOPRS

D) BÇUVVZMSPT E) ADŞZVZNPNV

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66. JLAAPTİOGK kodlaması ile verilen kelime aşağıdakilerden hangisidir?

Which of the following is the word for the coding JLAAPTİOGK?

A) PASLI B) KASLI C) PATLI D) KAPLI E) KATLI

n bir pozitif tam sayı olsun. n# ile n ye kadar olan tüm asal sayıların çarpımını tanımlayalım.

Örneğin;

5#=2.3.5=30

10#=2.3.5.7=210

dır.

Let n be a positive integer. Let us define the multiply of the prime numbers between 1 and n with n# such as

5#=2.3.5=30

10#=2.3.5.7=210

Solve the questions 67. 68. and 69. according to this rule.

67. 16 # kaçtır?

Find 16# = ?

A) 2310 B) 2730 C) 210 D) 30030 E) 30300

68. x#=28# ise x kaç farklı değer alabilir?

If x#=28#, ***how many different values can x have?***

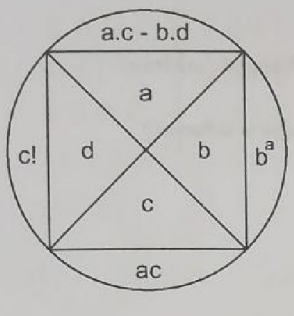
A) 2 B) 3 C) 4 D) 5 E) 6

69. $\frac{x\#}{8\#}=11$ olduğuna göre x aşağıdakilerden hangisi olabilir?

If $\frac{x\#}{8\#}=11$, ***which of the followings can be "x" ?***

A) 12 B) 13 C) 14 D) 15 E) 16

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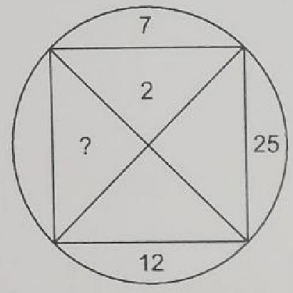
biçiminde tanımlanıyor.

the rule is defined as in the figure

70. ve 71. soruları buna göre cevaplayınız.

Solve the questions 70. and 71. according to this rule.

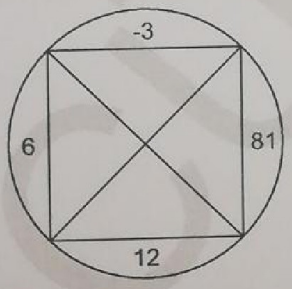
70.



d= ?

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

71.



⇒ a+b+c+d= ?

A) 13 B) 14 C) 15 D) 16 E) 17

72.

x	a	b
a	b^2+4	
b		$28-a^2$

Yukarıdaki çarpma tablosunda a ve b harfleri pozitif birer sayının yerine kullanılmıştır. Buna göre a kaçtır?

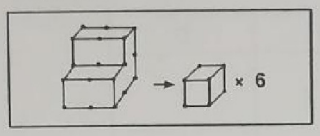
In the multiplication table above, a and b are used instead of positive numbers. According to this, find a= ?

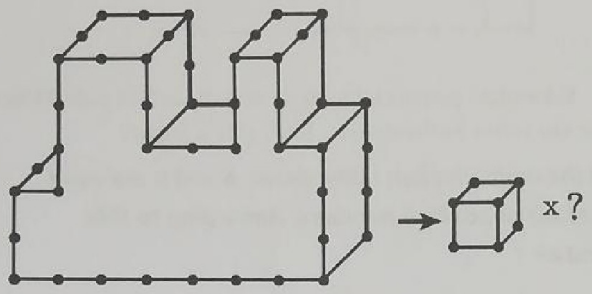
A) 3 B) 4 C) 5 D) 6 E) 7

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73.

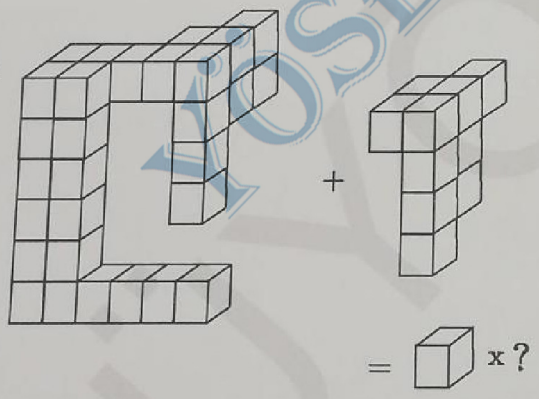
ÖRNEK
EXAMPLE





A) 48 B) 50 C) 52 D) 54 E) 56

74.



A) 36 B) 37 C) 38 D) 39 E) 40

75. Aşağıdaki şekillerden hangisi farklıdır?

Which of the following shape is different?

A) 

B) 

C) 

D) 

E) 

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76.

KADI	1953
SARI	6348
SILA	2379
YARE	7369
DAYI	1349

$\Rightarrow$ SARI = ?

A) 1953 B) 6348 C) 2379 D) 7369 E) 1349

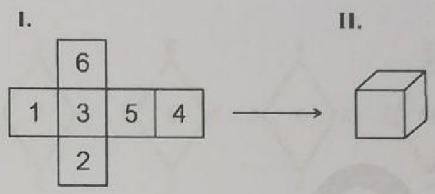
77.



$\Rightarrow$ □ ○ △ ◎ ⬠ ☆ = ?

A) 251634 B) 254631 C) 253614 D) 241635 E) 341625

78.



I. şeklinde verilen karton katlanarak II. şekildeki zar elde ediliyor. Zar atıldığında



şeklinde ise alt ve üst yüzeylerdeki rakamların toplamı kaçtır?

By the folding cardboard given in I., the dice on II. is obtained

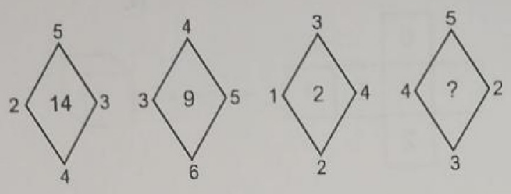


If the dice is landed as in the figure after rolling, what is the sum of the numbers on the top and the bottom surfaces?

A) 5 B) 6 C) 7 D) 8 E) 9

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79.

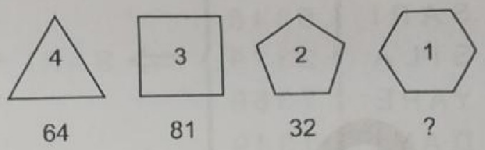


Soru işareti yerine aşağıdakilerden hangisi gelmelidir?

Which of the followings should replace "?" ?

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

80.



Soru işareti yerine aşağıdakilerden hangisi gelmelidir?

Which of the followings should replace "?" ?

A) 1 B) 6 C) 10 D) 11 E) 36

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