

1.SORU

$$p(x+1)+p(x)=x^2 - mx + m + 6$$

$$p(2)=?$$

2.SORU

$$2\sqrt{9-\frac{9}{x}} = \sqrt{4-\frac{4}{x}} + \sqrt{1-\frac{1}{x}}$$

$$x+\frac{23}{8}=?$$

3.SORU

$$\sqrt{4x^2 - 12xy + 9y^2} + |2x - 3| = 0$$

$$x + y = ?$$

#### 4.SORU

$$x^2 \cdot y + y^2 \cdot x = 30$$

$$x \cdot y + x + y = 11$$

$$y > 2$$

$$3x^2 + 2y^2 = ?$$

#### 5.SORU

$$(a_n) = \frac{2^{2n}}{5^n}$$

$$\frac{3(a_1 + a_2 + \dots + a_{10})}{5} + \frac{12}{5} \cdot \left(\frac{4}{5}\right)^{10} = ?$$

#### 6.SORU

$$f(x+1) = f(x) + x + 1$$

$$f(1) = 1$$

$$(f \circ f)(2) = ?$$

7.SORU

$$x^2 = 4^5 + 4^n + 2^{13} \quad , \quad x \in \mathbb{Z}$$
$$n = ?$$

8.SORU

$17! + 1 < p \leq 17! + 17$   
p asal sayı ise kaç farklı p sayısı vardır ?

9.SORU

$$\left(1 - \frac{1}{1-i}\right)^{15} = ?$$

10.SORU

$$f(x) = \ln \left[ \sin^2 \left( x - \frac{12}{2} \right) \right] + e^{3 \left( x - \frac{12}{2} \right)}$$
$$f' \left( \frac{12}{2} \right) = ?$$

11.SORU

$$3^x = 125$$
$$5^y = 81$$
$$x \cdot y = ?$$

12.SORU

$$\log_4 \sqrt{8 \sqrt{4 \sqrt{2}}} = ?$$

13.SORU

$$\lim_{x \rightarrow 8} \frac{x-8}{\sqrt[3]{x}-2} = ?$$

14.SORU

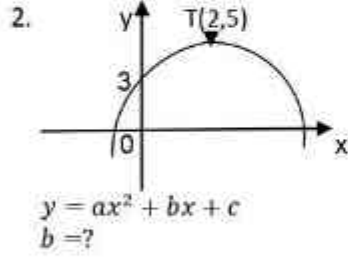
$$\frac{18}{3.4} + \frac{18}{4.5} + \frac{18}{5.6} + \dots + \frac{18}{17.18} = ?$$

**ÖRNEK SORULAR:**

1.  $\frac{x^2-x-2}{x^3+2x^2+x} \cdot \frac{x^3-x}{x^2-5x+6} = ?$

- a)  $\frac{x+1}{x-3}$     b)  $\frac{x-1}{x-3}$     c)  $\frac{x-2}{x-3}$     d)  $\frac{x}{x-3}$     e)  $\frac{x-1}{x+1}$

Cevap: b



- a) -2    b) -1    c)  $\frac{1}{2}$     d) 1    e) 2

Cevap: e

3.  $\lim_{x \rightarrow 8} \frac{\sqrt[3]{x}-2}{\sqrt{x}-2\sqrt{2}} = ?$

- a)  $\frac{\sqrt{2}}{8}$     b)  $\frac{\sqrt{2}}{4}$     c)  $\frac{\sqrt{2}}{3}$     d)  $\frac{\sqrt{2}}{2}$     e)  $\sqrt{2}$

Cevap: c

4.  $\sum_{n=0}^{\infty} \frac{1+3^n}{5^n} = ?$

- a)  $\frac{4}{7}$     b)  $\frac{5}{2}$     c)  $\frac{15}{2}$     d)  $\frac{15}{4}$     e) 5

Cevap: d

5.  $\frac{\sin x + 2 \cos x}{3 \sin x + \cos x} = \frac{11}{13}$

$\cos 2x = ?$

- a)  $\frac{7}{25}$     b)  $\frac{9}{16}$     c)  $\frac{16}{25}$     d)  $\frac{9}{25}$     e) 1

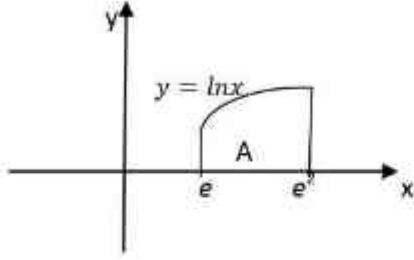
Cevap: a

6.  $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \frac{1}{3}$   
 $3a - 2c + 4e = 7$   
 $3b + 4f = 17$   
 $d = ?$

- a) -5    b) -2    c) 1    d) 10    e) 17

Cevap: b

7.



$y = \ln x, \quad x = e, \quad x = e^2 \Rightarrow A = ?$

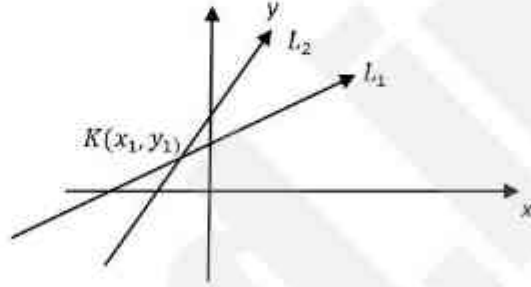
- a)  $2e^2$     b)  $e^2$     c)  $e$     d)  $2e$     e)  $1+e$

Cevap: b

8.  $L_1: x - 2y + 3 = 0$

$L_2: 3x - y + 4 = 0$

$L_1 \cap L_2 = K(x_1, y_1) \Rightarrow x_1 + y_1 = ?$



- a) -2    b)  $-\frac{3}{2}$     c) 0    d) 1    e)  $\frac{3}{2}$

Cevap: c

9.

I.  
28763  
31920  
04769  
05927  
93176

II.  
ULBKR  
ACBKE  
REMBK  
EMRAU  
USRAB

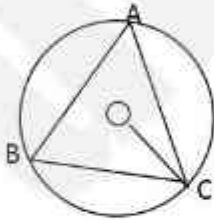
ise,  $28764 = ?$

- a) ABULC    b) ACBKL    c) ALKBC    d) ACALK    e) EUKBK

Cevap: b

10.

$m(\widehat{BCO}) = 40^\circ$   
 $m(\widehat{BAC}) = ?$



- a) 35    b) 40    c) 45    d) 50    e) 55

Cevap: d

11.

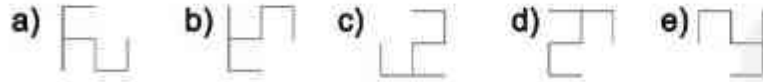
	1	2	3
4	4	8	P
5	5	R	15
6	5	12	13

Yukarıdaki tabloda sayılar belirli bir kurala göre yazılmıştır.  
Buna göre,  $P + R = ?$

In the table above the numbers are written accordingly to a rule.  
Accordingly,  $P + R = ?$









- a) 0      b) 10      c) 16      d) 20      e) 22

12. Aşağıdaki şekillerden hangisi farklıdır?  
Which one of the following figures is different?

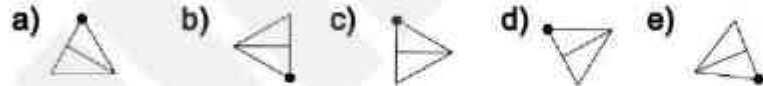


Cevap: b

13.

		
		?
		

Soru işareti "?" olan yere aşağıdakilerden hangisi gelmelidir?  
Which one of the following shapes does the question mark stand for?



Cevap: d



$$1. \frac{(a-b)^3}{a^2+ab+b^2} : \frac{a^2-b^2}{(a+b)^2} = ?$$

- A)  $a+b$     B)  $\frac{(a-b)^3}{a^2+ab+b^2}$     C)  $\frac{(a-b)^3}{a^3-b^3}$   
 D)  $\frac{(a-b)^3 \cdot (a+b)}{a^3-b^3}$     E)  $a-b$

$$2. \sqrt{15 \cdot 17 \cdot 19 \cdot 21 + 16} = ?$$

- A) 324    B) 225    C) 319    D) 220    E) 219

$$3. \lim_{x \rightarrow 64} \frac{\sqrt{x} - 8}{\sqrt[3]{x} - 4} = ?$$

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

$$4. \lim_{x \rightarrow \infty} \frac{\pi^{x+1} + e^{x-3}}{4\pi^x + 21} = ?$$

- A) 0    B)  $\infty$     C)  $\frac{1}{4}$     D)  $\frac{\pi}{4}$     E)  $\frac{1}{4e^3}$

$$5. \int \left( 3x^2 + \frac{5}{x} + e^x \right) dx = ?$$

- A)  $x^3 + \ln x + e^x + c$   
 B)  $x^3 + 5 \ln x + \frac{e^{2x}}{2} + c$   
 C)  $\frac{3}{2}x^3 + \ln 5x + e^x + c$   
 D)  $x^3 + 5 \ln x + e^x + c$   
 E)  $\frac{2}{3}x^3 + 5 \ln x + e^x + c$

$$6. \frac{2}{\log_4 6} + \frac{4}{\log_3 6} - \frac{1}{\log_x 6} = 2$$

$$\rightarrow x = ?$$

A)6 B)18 C)36 D)12 E)24

$$7. 11^2 = 1 + 3 + 5 + \dots + 21$$

$$9^2 = 1 + 3 + 5 + \dots + x$$

$$\rightarrow x = ?$$

A)21 B)9 C)10 D)17 E)19

$$8. \left(1 - \frac{1}{4}\right) \cdot \left(1 - \frac{1}{9}\right) \cdot \left(1 - \frac{1}{16}\right) \cdot \dots \cdot \left(1 - \frac{1}{400}\right) = ?$$

A)  $\frac{21}{40}$  B)  $\frac{21}{20}$  C)  $\frac{21}{2}$  D)  $\frac{19}{40}$  E)  $\frac{19}{2}$

$$9. 3, 8, 23, x, 203, y$$

$$y - x = ?$$

A)542 B)543 C)540 D)545 E)541

$$10. \sqrt{x+2} - \sqrt{x-2} = A$$

$$\sqrt{x+2} + \sqrt{x-2} = ?$$

A)  $4+A$  B)  $4-A$  C)  $\frac{A}{4}$  D)  $\frac{4}{A}$  E)  $4A$

$$11. f(x^3 + 2x) = 3x^3 + 6x + 17$$

$$\rightarrow f(8) = ?$$

A)24 B)31 C)23 D)25 E)41

1-D 7-D

2-C 8-C

3-D 9-C

4-D 10-D

5-B 11-E

6-C