

Faz 01 Temel Kavramlar - I

1	2	3	4	5	6
5	D	0	132	36	4

7	8	9	10	11	12
8	3	50	0	23	C

13	14	15	16	17	18
C	C	E	I ve III	I ve III	24

19	20	21	22		
54	5	60	22		

Faz 02 Temel Kavramlar - II

1	2	3	4	5	6
E	(-, -, -)	A	D	25	E

7	8	9	10	11	12
12	10	4	B	21	52

13	14	15	16	17	18
9	25	12	198	42	19

19	20	21	22	23	24
420	1575	248	100	9	20

Faz 03 Sayı Basamakları

1	2	3	4	5	6
12	5	12	15	15	7

7	8	9	10	11	12
13	$10x + 5$	409	17	252	500

13	14	15	16	17	18
17	2	36	9452	15	$A + 222$

19	20	21			
84	4	85			

Faz 04 Bölme - Bölünebilme

1	2	3	4	5	6
87	$\frac{A + 2}{4}$	1	67	6	16

7	8	9	10	11	12
25	6	15	9	14	10

13	14	15	16	17	18
0	1	3	15	3	C

19					
0					

**Faz 05 Faktöriyel - Asal Çarpan**

1	2	3	4	5	6
C	10	33	5	8	9

7	8	9	10	11	12
8	55	4	5	5	12

13	14	15	16	17	18
$\frac{21}{2}$	5	9	23	9	15

19	20	21	22	23	24
25	18	15	12	293	287

Faz 06 EBOB - EKOK - I

1	2	3	4	5	6
12	a.b.c	60	$2^3 \cdot 3 \cdot 5^2 \cdot 7^2$	1440	36

7	8	9	10	11	12
15	9	64	14	60	I - II - III

13	14	15	16	17	18
8	I - II	56	30	88	1

19					
64					

Faz 07 EBOB - EKOK - II

1	2	3	4	5	6
10	72	15	15	963	117

7	8	9	10	11	12
180	243	4	20	15:00	96

13	14	15			
6	E	C			

Faz 08 Rasyonel Sayılar - I

1	2	3	4	5	6
2	8	7	3	$\frac{19}{7}$	40

7	8	9	10	11	12
$\frac{5}{8}$	$-\frac{1}{12}$	$\frac{17}{20}$	10	$\frac{61}{6}$	$\frac{5}{6}$

13	14	15	16	17	18
4 - A	11	A	A	A	D

19					
A					

Faz 09 Rasyonel Sayılar - II

1					
a.	b.	c.	d.	e.	f.
0,3	0,6	5,83	0,75	0,012	0,016

2					
a.	b.	c.	d.	e.	f.
$\frac{8}{10} = \frac{4}{5}$	$\frac{26}{10} = \frac{13}{5}$	$\frac{36}{100} = \frac{9}{25}$	$\frac{125}{10} = \frac{25}{2}$	$\frac{8}{1000} = \frac{1}{125}$	$\frac{175}{100} = \frac{7}{4}$

3	4	5			
C	19,296	a. 19,2	b. 0,72	c. 0,0048	d. 0,325

6	7	8	9	10	11
20	$\frac{7}{20}$	875	6	$\frac{\sqrt{2}}{3}$	2

12	13	14	15	16	17
$\frac{4}{11}$	$\frac{11}{2}$	$\frac{7}{4}$	$b > a > c$	$b < a < c$	$a > b > d > c$

18	19	20			
$c > a > b$	$c > a = b$	$x > y > z$			

Faz 10 1. Dereceden Denklemler

1	2	3	4	5	6
8	$\frac{5}{8}$	$\frac{1}{8}$	-2	-2	3

7	8		9	10
0	N ve Z'de 0, Q ve R'de $\frac{6}{5}$		24	E

11	12	13	14	15	16
\emptyset	R	-24	-2	-2	-6

17	18	19	20	21	22
10	3	6	B	C	D

23	24	25			
B	44	C			

Faz 11 Basit Eşitsizlikler

1	2	3	4	5	6
2	16	$(-1, 3)$	10	12	$(-2, 7)$

7	8	9	10	11	12
$(-2, 2]$	$(-2, 1]$	20	-12	35	23

13	14	15	16	17	18
76	$[-28, 21)$	-123	-123	E	B

19					
B					

Faz 12 Mutlak Değer

1	2	3	4	5	6
$-2x + 4$	3a	$-a + b + c$	39	-1	3

7	8	9	10	11	12
28	1	-6	4	$\{-4, 3\}$	\emptyset

13	14	15	16	17	18
10	$\{-2\}$	$\frac{3}{2}$	8	3	33

19	20				
E	$(-\infty, -6] \cup [2, \infty)$				

Faz 13 Üslü Sayılar - I

1	2
a. $\frac{1}{2}$ b. $\frac{1}{25}$ c. $\frac{4}{3}$ d. 8	a. 2^{12} b. 2^{11} c. 3^5

3	4	5
a. 2^4 b. $7^{2(x-y)}$	a. 2^{-15} d. 7^6	a. 10^3 b. 10^3

6	7	8	9	10
a. $\left(\frac{2}{5}\right)^7$ b. $\left(\frac{a^2}{b^y}\right)^x$	15^4	2^{25}	27	B

11	12	13	14	15	16
C	1	a^9	810	2	9

17	18	19	20	21	22
64	7	36	-20	1	13

23	24				
9	18				

Faz 14 Üslü Sayılar - II

1	2	3	4	5	6
1	$\frac{2}{3}$	$-\frac{1}{5}$	2	-2	5

7	8	9	10	11	12
-16	1	-6	$\frac{13}{9}$	$\frac{2a+7}{2a-1}$	16

13	14	15	16	17	18
$\frac{9}{25}$	0	7	$4,503 \cdot 10^{12}$	10	211

19	20	21			
$c > a > b$	64	A			

Faz 15 Köklü Sayılar - I

1	2
25	$\frac{9}{4}$

3
a. $2^{\frac{1}{2}}$ b. $5^{\frac{1}{3}}$ c. $2^4 = 2$ d. $2^{\frac{x+1}{3}}$ e. $\sqrt[3]{3^2} = \sqrt[3]{9}$ f. $\sqrt[3]{6}$

4	5
3	7

6
a. $5\sqrt{2}$ b. $3^3 \cdot \sqrt{3}$ c. $a \cdot b^2 \sqrt[4]{c^3}$ d. $\frac{1}{2}$ e. $\frac{5}{3}$ f. $\frac{1}{5}$

7	8	9	10
2	a. $\sqrt{50}$ b. $\sqrt{81}$	3	A

11	12	13	14	
a. 2	b. -2	12	$5\sqrt{2}$	$-\frac{2}{5}$

15	16	17	18	19
a. $6\sqrt{10}$ b. 5	$6\sqrt{5}$	$2\sqrt{3}$	1	$\frac{3}{5}$

20					
B					

Faz 16 Köklü Sayılar - II

1	2	3	4		
2	$2\sqrt{5}$	2	$\sqrt{2}$		

5		6	7		
a. $\frac{\sqrt{3}}{3}$	b. $\sqrt{3} + \sqrt{2}$	c. $\frac{3+\sqrt{2}}{7}$	$\sqrt{3} + 1$	-2	

8	9	10	11	12	13
$\sqrt{3} - \sqrt{2}$	1	-20	$\frac{2}{A}$	$B > D > C > A$	6

14	15	16	17		
B	11 - 12	Yeşil Boru	$\sqrt{15}$		

Faz 17 Oran - Orantı - I

1	2	3	4	5	6
$\frac{11}{3}$	4	2	48	1	27

7	9	13	16	17	18
$\frac{3}{2}$	7	27	2	$13 - 4z$	E

Faz 18 Oran - Orantı - II

1	2	3	4	5	6
1400	D	B	12	E	D

7	8	9	10	11	12
16	36	440	7200	187	13

13	14	15	16		
26	20	2	135		

Faz 19 Sayı - Kesir Problemleri

1	2	3	4	5	6
9	47	$\frac{100+x}{5}$	7	21,6 m	36

7	8	9	10	11	12
12	1,5 m	40	20	40	14

13	14	15	16	17	18
$3D = 2A$	$5b - 4a$	900	24	400	42000

19					
3					

Faz 20 Yaş ve İşçi Problemleri

1	2	3	4	5	6
22	9	36	30	40	18

7	8	9	10	11	12
32	10	24	2001	6	20

13	14	15	16	17	18
4	6	10	30	$\frac{12}{7}$	30

19	20	21	22		
16	73	10	E		

Faz 21 Hareket Problemleri

1	2	3	4	5	6
6	180	240	4	80	450

7	8	9	10	11	12
B	120	100	250	37	65

13	14	15			
$\frac{2}{3}$	12	E			

**Faz 22** Yüzde Problemleri

1	2	3	4	5	6
60	4	E	230	50	25

7	8	9	10	11	12
60.000	$c < a < b$	%6	5	200	E

13	14				
25	18,6 t				

Faz 23 Karışım Problemleri

1	2	3	4	5	6
56	D	16	28	50	%30

7	8	9			
%40	22	80			

Faz 24 Grafik Problemleri

1	2	3	4	5	6
9	8	60	2	128	7

7	8	9	10	11	12
B	A	167	55	12	75

13	14				
16	D				

Faz 25 Mantık - I

1	2	3	4	5
3	7	$p \equiv 1, q \equiv 0$	$p \equiv a, r \equiv 5$	1

6	7	8	9	10
0	1, 0, 1	p	p'	0

11	12	13	14
1	$[(p' \vee q) \vee (p \wedge q')] \wedge 0 = 0$	1	$p \wedge q$

15	16
B	Karşıtı; Yarın cuma ise bugün perşembedir. Tersi; Bugün perşembe değil ise yarın cuma değildir. K-T; Yarın cuma değil ise bugün perşembe değildir.

17	18	19	20	21
E	0	D	D	C

22				
D				

Faz 26 Mantık - II

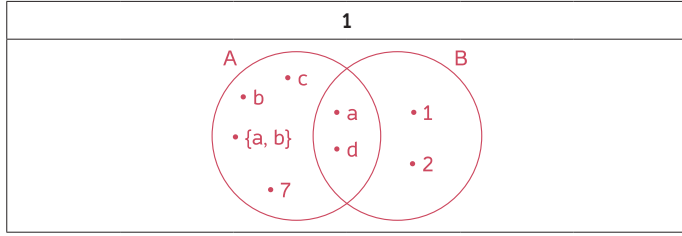
1	2	3	4	5	6
$p(1) \equiv 1$ $p(2) \equiv 2$	E	D	E	E	C

Faz 27 Kümeler - I

1	2	3	4	5	6	7
{e, k, m, r, ü}	19	\emptyset	B	D	4	5

8	9	10
11	8	a. 32 b. 32 c. 16 d. 16 e. 8 f. 48

11	12	13				
$2^{10} - 2^5$	24	3				

Faz 28 Kümeler - II


2	3	4	5	6	7
[4, 7]	8	7	83	7	33

8

a. {1, a, c, b}	b. {a, c, d, 2}	c. {b, c, d, 3}	d. {1, 3, a, b, c, d}
e. {2, 3, a, c, b, d}	f. {a, c}	g. {c, d}	h. {b, c}
i. {3, 4}	i. {1, a, 2, 3, 4, d}	k. 4	l. {1, a, 2}
m. {d}	n. c	o. {1, 2, a, b}	

9	10	11	12
16	19	6	D

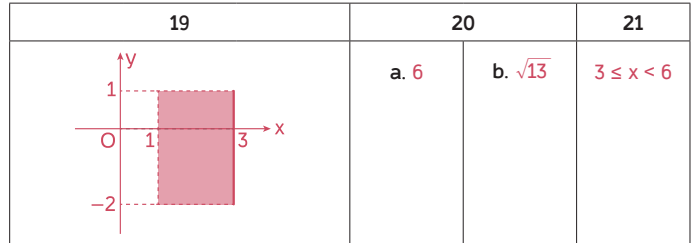
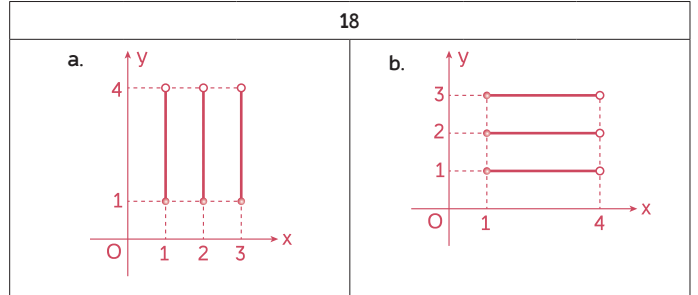
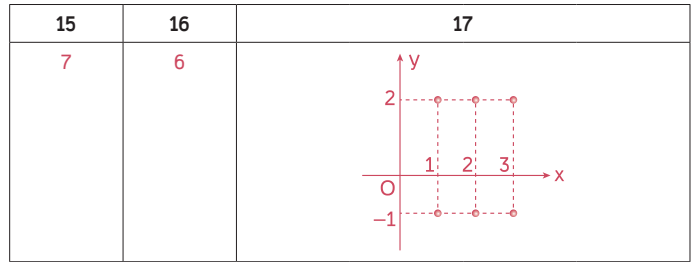
13	14	15	16
47	A	E	63

Faz 29 Kümeler - III

1	2	3	4	5	6
32	C	12	32	14	19

7	8	9	10	11	12
26	38	600	7	%40	5

13	14
6	a. {(1, a), (1, b), (2, a), (2, b), (3, a), (3, b)} b. {(a, 1), (a, 2), (a, 3), (b, 1), (b, 2), (b, 3)} c. {(a, a), (a, b), (b, a), (b, b)}



Faz 30 Permütasyon

1	2	3	4			5	
12	12	36	a. 6	b. 36	c. 30	720	

6				7			
a. 125	b. 60	c. 75	d. 24	a. 32	b. 36		

8			9	10		11
a. 31759	b. 120. sayı		32	a. 125	b. 60	4

12	13	14	15	16		
840	60	336	480	a. 5040	b. 720	c. 144

17		18		19	20	
a. 360	b. 240	a. 105	b. 30	20	a. 126	b. 60

21							
a. 1680	b. 30						

Faz 31 Kombinasyon - I

1	2	3	4	5			
26	9	84	35	a. 20	b. 22	c. 22	d. 54

6					7	8	
a. 15	b. 20	c. 10	d. 10	e. 6	280	120	

9						10	11
a. 56	b. 30	c. 11	d. 16	e. 16	f. 46	6	35

12	13		14	15	16	17	
13,860	a. 28	b. 140	80	10	840	40	

18		19					
a. 21	b. 21	28					

Faz 32 Kombinasyon - II

1					2		
a. 15	b. 20	c. 15	d. 42		a. 95	b. 4	c. 7

3		4			5	6	
a. 15	b. 4	a. 4	b. 28	c. 60	79	a. 32	b. 40

7	8			9	10	11	
53	a. 60	b. 18	c. 18	18	27	a. 441	b. 80

12	13	14	15				
71	22	26	40				

Faz 33 Binom

1		2	3	4	5
KT = 1	ST = 16	280	29	15	15

6	7	8		9	10
$-20.a^3$	565	$-240.a^2.b^3.c$		7	C

11					
-14					

Faz 34 Olasılık

1	2	3			
E	D	$\frac{1}{4}$			

4					
a. $\frac{1}{2}$	b. $\frac{1}{3}$	c. $\frac{1}{6}$	d. $\frac{1}{2}$	e. 0	f. 1

5			6		
$\frac{1}{6}$	$\frac{1}{9}$	$\frac{1}{6}$	$\frac{3}{7}$	$\frac{3}{7}$	$\frac{4}{7}$

7	8	9	10	11	12
$\frac{5}{6}$	$\frac{7}{13}$	$\frac{1}{6}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{3}{7}$

13	14	15	16		
$\frac{63}{233}$	$\frac{3}{10}$	$\frac{1}{9}$	a. $\frac{1}{4}$	b. $\frac{3}{8}$	

Faz 35 Veri

1	2	3	4	5	6	7
9	2,83	2	Yok	78	42,5	Aritmetik O.: 169 Mod: 165 Medyan: 170

8	9	10	12		
80.000	12	Yiğit: (15, 1) Büşra: (15, 8)	Veri	Kişi	
			30 - 41	6	
			12 - 53	5	
			54 - 65	2	
			66 - 77	1	
			78 - 89	1	

Faz 36 Fonksiyonlar - I

1	2	3	4	5	6
B	f_1, f_4	d - e	D	{-2, 0, 3}	E

7			8	9	10
a. $R \rightarrow R$ $R \rightarrow R$	b. [-2, 4) (-3, 2]	c. (-1, 3) [-6, 5)	B	E	4

11	12	13	14	15	16
8	0	B	-1	8	E

17	18	19	20	21	22
4	13	-207	10!	8	6

23	24	25	26		
13	$\frac{f^3(x)}{25}$	32	24		

Faz 37 Fonksiyonlar - II

1	3	4	5	7	8
D	D	-13	-3	6	$-\frac{1}{3}$

9	10	11	12	13	14
-9	8	43	9	21	10

15	16	17		
a. $3x + 5$ b. 1 c. 45 d. $\frac{11}{6}$	(-1, 7), (0, 3)	(4, 6, 0)		

Faz 38 Fonksiyonlar - III

1	2
12	$\frac{x-3}{2}$

3					
a. $x-3$	b. $\frac{x+5}{3}$	c. $\frac{-5x+3}{3x-2}$	d. $\frac{4x+1}{5}$	e. $\frac{5}{x \cdot 2}$	f. $\frac{-3x+5}{x+2}$

4	5	6	7	8	9
$\frac{x-1}{x-2}$	C	C	5	III	3

10	11	12	13	14	15
a. $8x-10$ b. $8x+9$ c. 14 d. 38	7	$\frac{2x-7}{2}$	$2x-11$	$\frac{13}{10}$	4

16	17					
0	a. 7	b. 0	c. -5	d. 2	e. 0	f. 0

18	19	20		21	22
$-\frac{3}{2}$	-1	a. -2	b. -1	9	-2

23	24	25			
1	2	-18			

Faz 39 Polinomlar - I

1				2	3
a. 3	b. 2	c. -6	d. 2, -5, 4, -6	2	25

4			5	6	7
	Katsayılar Toplamı	Sabit Terim	21	2	2
P(x)	P(1)	P(0)			
P(x+2)	P(3)	P(2)			
P(x ² +x+1)	P(3)	P(1)			
P(x ² -4)	P(-3)	P(-4)			
P(x ³ -x+1)	P(1)	P(1)			

8	9	10	11	12
6	-1	D	a. x^2-3x+5 b. x^2+5x+9 c. x^2-x+3	11

13	14	15	16	17	18
C	5	12	C	24	-6

19	20	21	22
a. $6x^3-7x^2+9x-8$ b. $2x^3-3x^2+3x+4$	$x^5+2x^3+2x^2-3x+6$	3	41

23					24	25	26
a. 4	b. 7	c. 8	d. 18	e. 7	6	3	13

27	28				
3	0				

Faz 40 Polinomlar - II

1	2	3	4	5	6	7	8
C	C	36	-10	-14	1	D	-3

9	10	11	12	13	14	15	16
2	12	$\frac{1}{2}$	-4	$-\frac{1}{3}$	$\frac{8}{3}$	$2x-4$	36

17	18	19					
$5x-12$	D	$4x+15$					

Faz 41 Çarpanlara Ayırma - I

1	2	3	4	5
a. $a(x + y)$ b. $ab(b - 1)$ c. $3xy^2(xy - 5)$ d. $4(x - y)(3x^2y - 4z(x - y))$	3	E	a. $(a + 1)(a^2 + 1)$ b. $(x + y)(a + b)$ c. $(x - y)(x - 1)$ d. $x + 2y$	D

6	7	8	9	10	11
105	a. $x^2 + 4xy + 4y^2$ b. $9a^2 - 12ab + 4b^2$ c. $x^2 + 2 + \frac{1}{x^2}$	7	1	19	38

12	13	14	
4	$\sqrt{37}$	a. $(x - 3)(x + 3)$ b. $(2x + 5y)(2x - 5y)$ c. $(\sqrt{x} - \sqrt{y})(\sqrt{x} + \sqrt{y})$ d. $(x + \sqrt{3}y)(x - \sqrt{3}y)$	e. $a^2 - 4b^2$ f. $\frac{1}{x^2}$ g. 9 h. $(z + c)(-2x + 2y - c)$

15	16	17	18	19
D	3^{10}	50	a. $(x + 3)(x + 2)$ b. $(x - 4)(x + 3)$ c. $(x - 1)(x - 15)$ d. $(x - 2)(x + 1)$	a. $(6x - 2)(x - 2)$ b. $(x + 3)(2x - 1)$ c. $(4x + 3y)(2x - 4y)$

20	21	22	23	24
4	5	E	-2	a. $(a + 1)(a^2 - a + 1)$ b. $(2x - 3)(4x^2 + 6x + 9)$ c. $(2a + 3b)(4a^2 - 6ab + 9b^2)$

25	26	27	28	29	30		
50	$\frac{3}{16}$	2012	5	140	3		

Faz 42 Çarpanlara Ayırma - II

1	2	3	4	5	6	7	8
E	E	E	A	1	$-a^2$	C	A

9	10	11	12	13	14	15	16
A	C	C	E	A	E	70	$x + 1$

17	18						
110	46						

Faz 43 II. Dereceden Denklemler - I

1
-9

2						
a. ± 4	b. $\{0, 5\}$	c. $\{1, 3\}$	d. $\{2\}$	e. $\left\{-\frac{3}{2}, 1\right\}$	f. $\{3 \pm \sqrt{3}\}$	g. Kök yok

3	4	5	6	7	8	9
7	$\{-3, 1\}$	$\frac{5}{6}$	-4	13	D	-2

10						
$\{-2n, m\}$						

**44 II. Dereceden Denklemler - II**

1					2		
a. 6	b. 8	c. 14	d. 12	e. 3	a. 6	b. 34	c. $\sqrt{32}$

3	4	5	6	7	8	9	10
$\frac{11}{5}$	2	17	5	14	-8	40	-20

11	12	13	14	15	16	17																
-3	C	B	3	5	8	<table border="1"><thead><tr><th></th><th>Re</th><th>Im</th></tr></thead><tbody><tr><td>z_1</td><td>3</td><td>7</td></tr><tr><td>z_2</td><td>-4</td><td>-1</td></tr><tr><td>z_3</td><td>0</td><td>4</td></tr><tr><td>z_4</td><td>3</td><td>0</td></tr></tbody></table>			Re	Im	z_1	3	7	z_2	-4	-1	z_3	0	4	z_4	3	0
	Re	Im																				
z_1	3	7																				
z_2	-4	-1																				
z_3	0	4																				
z_4	3	0																				

18	19	20	21	22		23															
$1 + 3i$ $1 - 3i$	$+4i$ $-4i$	1	$\frac{1}{4}$	<table border="1"><thead><tr><th></th><th>Re</th><th>Im</th></tr></thead><tbody><tr><td>z_1</td><td>3</td><td>-4</td></tr><tr><td>z_2</td><td>0</td><td>2</td></tr><tr><td>z_3</td><td>5</td><td>0</td></tr><tr><td>z_4</td><td>-5</td><td>2</td></tr></tbody></table>			Re	Im	z_1	3	-4	z_2	0	2	z_3	5	0	z_4	-5	2	$\bar{z}_1 = 3 + 4i$ $\bar{z}_2 = 5i$ $\bar{z}_3 = 5$ $\bar{z}_4 = -3 - 2i$
	Re	Im																			
z_1	3	-4																			
z_2	0	2																			
z_3	5	0																			
z_4	-5	2																			

24	25					
4	$-\sqrt{3} - 1$					