

ÜNİTE – 1 | PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

TAM SAYILARLA İŞLEMLER

TEST 1

1. $-42 + 15 = -27$

Cevap: C

2. $(-8) + 3 = -5$ ✓
 $(-7) + (-4) = -11$ ✓
 $(-6) + (-6) = -12$ ✗
 $(-4) + 10 = 6$ ✗

Cevap: B

3. $12 + 3 - 15 = 0$

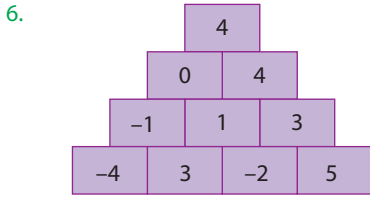
Cevap: A

4. $(-8) + 10 = 2$

Cevap: C

5. $A = -7$ $B = 0$
 $C = 4$ $D = 9$

Cevap: D



Cevap: B

7. $-6 - 6 - 4 + 8 + 8 - 3 = -6$

Cevap: C

8.

12	-12
5	9
-10	6
-11	-3

-5	15
1	-15

Cevap: B

TEST 2

1. $6 + (-3) = (-3) + 6$ olmalıydı.

Cevap: D

2. $\triangle = -8$
 -8 'in toplama işlemine göre tersi $+8$ 'dir.

Cevap: D

3. $+8 + (+12) = 20$

Cevap: D

4. $2 + (-9) = -7$

Cevap: C

5. $(-4) - \triangle + 4 = -8$
 ise $\triangle = 8$ 'dir.

Cevap: D

6. $\triangle = +5$
 $\square = 0$
 $\star = -2$
 $(+5) + 0 + (-2) = 3$

Cevap: A

7. $\triangle = 15$ $\square = -21$
 $-15 - (-21) = 6$

Cevap: C

8. Değişme Özelliği ✓
 Dağılma Özelliği ✓
 Birleşme Özelliği ✓

Cevap: C

9. $\triangle = -8$ $\square = 4$
 ise $\star = 4$ 'tür.
 4 'ün toplama işlemine göre tersi -4 'tür.

Cevap: A

TEST 3

1. $(-2) \cdot (-3) = 6$
 $(-3) \cdot (-4) = 12$
 $6 \cdot 12 = 72$

Cevap: B

2. $12 \div 3 = 4$
 $4 - 8 = -4$
 $(-4) \cdot (-2) = 8$
 $8 \div (-1) = -8$
 $-8 + 5 = -3$

Cevap: B

3. $A = 20$ $B = 9$
 $C = -10$ $D = 6$

Cevap: D

4. $3 \cdot (-4) = -12$

Cevap: D

5. $(-4) \cdot (-4) = 16$
 $16 - 8 = 8$
 $8 + (-4) = 4$

Cevap: B

6. $A = 4$ $B = -2$
 $4 \div (-2) = -2$

Cevap: D

7. $16 + (-8) + (-2) = 6$

Cevap: B

8.

-1	-2	-3	→ -6
	-5	-4	→ 20
-7	-6		→ 42
↓ 7	↓ -60	↓ 12	

Cevap: B

9. $(-4) \cdot (-6) = 24$
 $(-2) \cdot (-12) = 24$
 $(-3) \cdot (-8) = 24$

Cevap: A

TEST 4

- $4^3 = 64$
 $3^4 = 81$
 $64 - 81 = -17$

Cevap: D

2. $A = -16$ $B = 27$
 $27 - (-16) + 1 = 42$

Cevap: C

3. $-8^2 = -8 \cdot 8 = -64$

Cevap: D

4. $-1+1-1+1-1+1-1+1-1+1=0$

Cevap: B

5. $a - 2 = 0$ $a = 2$
 $b - 3 = 0$ $b = 3$
 $2^3 + 3^2 = 17$

Cevap: B

6. $(-4)^3 = -64$

Cevap: C

7. $100 - 4 = 96$
 $100 - 64 = 36$
 $100 - 36 = 64$
 $96 + 36 + 64 = 196$

Cevap: C

8.

$(-1)^2 = +1$	$(-2)^2 = +4$
$(-1)^4 = +1$	$(-2)^4 = +16$
$(-1)^3 = -1$	$(-2)^3 = -8$
$(-1)^5 = -1$	$(-2)^5 = -32$
$(-3)^2 = +9$	$(-4)^2 = +16$
$(-3)^4 = +81$	$(-4)^4 = +256$

$$\begin{array}{rcl} (-3)^3 & = & -27 \\ (-3)^5 & = & -243 \\ 6 \cdot 4 & = & 24 \\ 7 \cdot 3 & = & +21 \\ & & \hline & & 45 \end{array}$$

Cevap: B

9. $(-1)^4 - 4 \cdot (-1) = 5$
 $(-2)^3 + 3 \cdot (-2) = -14$
 $(-4)^0 - (-4) = 5$
 $5 - (-14) \cdot 5 = 75$

Cevap: B

TEST 5

1. $-18 - 10 + 6 = -22$
2. $4 \cdot 4 + 6 \cdot (-2) = 4$
3. $600 - 100 = 500$
 $500 \div 100 = 5$
 $34 - 5 = 29$
4. $2 \cdot 5 = 10$
 $4 \cdot 3 = 12$
 $10 - 12 = -2$

Cevap: A

Cevap: C

Cevap: D

Cevap: B

5. $1 + 15 + 6 - 4 = 18$

Cevap: A

6. $(-3) \cdot 3 = -9$
 $(-3) \cdot 4 = -12$
 $(-3) \cdot 2 + 1 = -5$

Cevap: B

7. $13 - 5 + 15 - 9 + 14 = 28$

Cevap: D

8. Alican = $-4-4-8=-16$
Bahadır = $-10-10-8=-28$
 $-16 - (-28) = 12$

Cevap: D

9.



$\blacksquare = -7$ $\blacktriangle = -1$ (En fazla)

$3 \cdot (-8) + 2 \cdot (-7) + 3 \cdot (-1)$

$-24 - 14 - 3 = -41$

Cevap: A

BECERİ TEMELLİ SORULAR

TEST 1

- $-5 + 3 = -2$
 $-2 \div 2 = -1$
 $-1 + 3 = 2$

Cevap: C

2. $1 + 4 + 4 + 4 - 6 - 6 = 1$

Cevap: C

3. $1 - 7 + 3 + 2 = -1$
 $9 + 8 - 4 = 13$
 $13 - 1 = 12$
 $12 \div 2 = 6$

Her iki kefedede 6 olması için 2 ile 9 yer değiştirmelidir.

Cevap: D

3.

-1		-4	→ 4
	-7	-2	→ 14
-6	-3	-5	→ 90
↓ 6	↓ 21	↓ -40	

Cevap: D

TEST 2

1. Okan Deniz
 $(-4) \cdot (-6)$ $3 \cdot 6$
 $(-1) \cdot (-4)$ $5 \cdot (-2)$
 $18 - 10 = 8$

Cevap: D

2. $-12 + 14 = 2$

Cevap: C

3. $\frac{180}{30} = 6$ $\frac{180}{-30} = -6$
 $6 - (-6) = 12$

Cevap: A

4. $3^4 + 9 = 90$

Cevap: D

5. $(-8) \cdot (-9) = 72$
 $10 \cdot 7 = 70$
 $(-6) \cdot (-4) = 24$

Cevap: B

6. $-2 - (-5) = 3$

Cevap: A

TEST 3

1. $21 \cdot 30 - 19 \cdot 10 = 440$
 $22 \cdot 20 - 18 \cdot 10 = 480$
 $440, 480, 520, 560, 600, \dots$

Cevap: A

2.

+	a	b	c
d	-3		
e		-7	
f			-11

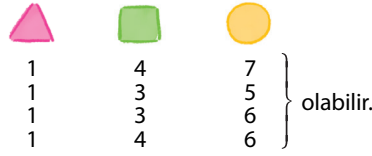
$$a+b+c+d+e+f = -21$$

Boş kutuların toplamı $2 \cdot (a+b+c+d+e+f)$

$$2 \cdot (-21) = -42$$

Cevap: A

3.



$$(4-1) \cdot (4-7) = -9$$

$$(3-1) \cdot (3-5) = -4$$

$$(3-1) \cdot (3-6) = -6$$

$$(4-1) \cdot (4-6) = -6$$

9, 4, 6 olabilir.

Cevap: A

4. $[2 - (-5)]^2 = 49$
 $(-6 + 4)^4 = 16$
 $(3 - 6)^3 = -27$
 $49 + 16 - (-27) = 92$

Cevap: A

5. $(-6) \div (-1) = 6$
 $(-5) \div (-1) = 5$
 $(-4) \div (-1) = 4$
 $(-3) \div (-1) = 3$
 $(-2) \div (-1) = 2$
 $(-1) \div (-1) = 1$
 $1 + 2 + 3 + 4 + 5 + 6 = 21$

Cevap: D

TEST 4

1. $6 \cdot (-1) + 2 \cdot (-3) + 2 \cdot (-5)$
 $-6 - 6 - 10 = -22$

Cevap: C

2. $-5 + 34 = 29$

Cevap: B

3. İpek = 5, -15 Melih = 9, -3
 $5 - (-3) = 8$
 $9 - 5 = 4$
 $-3 - (-15) = 12$
 $9 - (-15) = 24$

Cevap: B

4. Mavi = $5 + 1 - 27 = -21$
Sarı = $-1 - 16 - 16 + 4 = -29$
 $-29 - (-21) = -8$

Cevap: B

5. $-64 = 4 \cdot 4 \cdot 4 \cdot (-1)$
 $-30 =$
 $16 = 2 \cdot 2 \cdot 2 \cdot 2$
 $40 = (-5) \cdot 4 \cdot (-1) \cdot 2$

Cevap: B

6. $(-6) \cdot (-5) = 30$
 $4 + (-2) = 2$
 $30 + 2 = 32$

Cevap: C

TEST 5

1. $3 \cdot 7 + 1 = 22$
 $5 - 22 = -17$

Cevap: C

2. $-12 - 1 - 2 - 3 - 4 = -22$

Cevap: A

3. $3 - (-4) = 7$

Cevap: C

4.

8848	3711	250
$\underline{-5137}$	$\underline{-250}$	14,8
3711	1210	
	$\underline{-1000}$	
	2100	
	$\underline{-2000}$	
	100	

14,8 yaklaşık 15 alınır.

$$-7 - 15 = -22$$

Cevap: C

5. $200 - 80 = 120$
 $120 + 3 = 123$

Cevap: D

ÜNİTE – 2 | PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

RASYONEL SAYILAR

TEST 1

1. $\frac{15}{15} - \frac{3}{15} = \frac{12}{15} = \frac{4}{5}$

Cevap: C

2. $2\frac{3}{4} = \frac{11}{4}$

Cevap: A

3. $\frac{3}{4} = \frac{12}{16}$

12 - 7 = 5 parça boyanmalı

Cevap: B

4. $-1\frac{2}{8} = -\frac{5}{4}$
 $-1\frac{4}{8} = -\frac{3}{2}$
 $-1\frac{7}{8} = -\frac{15}{8}$

Cevap: B

5. $2\frac{1}{2} = \frac{5}{2}$

Cevap: D

6. $\frac{12}{8} = \frac{2}{3}$

Cevap: D

7. -6, -5, -4, -3, -2, -1, 0, 1, 2
 9 + 2 = 11

Cevap: C

8. Mert = -10
 Buse = $-7\frac{8}{3} = -\frac{29}{3}$
 Sibel = $-9\frac{4}{3} = -\frac{31}{3}$
 Ali = $-8\frac{5}{3} = -\frac{29}{3}$

Cevap: A

9. $-\frac{17}{3} = -5\frac{2}{3}$

$-\frac{27}{11} = -2\frac{5}{11}$ ✗

$-\frac{45}{13} = -3\frac{6}{13}$ ✓

$-\frac{35}{9} = -3\frac{8}{9}$ ✓

$-\frac{51}{15} = -3\frac{6}{15}$ ✓

Cevap: C

TEST 2

1. $\frac{12}{16} = \frac{3}{4} = 0,75$

Cevap: B

2. $6,4 = \frac{64}{10} = \frac{32}{5}$
 $-32 - 5 = -37$

Cevap: A

3. $\frac{65}{100} = \frac{13}{20}$
 $13 + 20 = 33$

Cevap: D

4. $\frac{45}{100} = \frac{9}{20}$
 $9 + 20 = 29$
 29'un katı olmalı

Cevap: A

5. $\frac{3}{5} = \frac{6}{10} = 0,6$

Cevap: D

6. $\frac{3}{4} = \frac{75}{100} = 0,75$

Cevap: C

7. $\frac{16}{45} = 0,355...$
 $\frac{160}{45} = 3,55...$
 $\frac{160}{45} = 3,55...$
 $\frac{160}{45} = 3,55...$

Cevap: B

8. $\frac{5}{16}$
 $\frac{5}{16} = 0,3125$
 $\frac{5}{16} = 0,3125$
 $\frac{5}{16} = 0,3125$
 $\frac{5}{16} = 0,3125$

Cevap: D

9. $\frac{3}{5} = 0,6$ ✓
 $\frac{2}{25} = 0,08$ ✓
 $\frac{11}{20} = 0,55$ ✓
 $\frac{7}{10} = 0,7$ ✓

Cevap: A

TEST 3

1. $\frac{11}{6} = 1,833$
 $\frac{11}{6} = 1,833$
 $\frac{11}{6} = 1,833$
 $\frac{11}{6} = 1,833$

Cevap: D

2. $-\frac{3}{5} = -0,6$ ✗
 $\frac{4}{3} = 1,3$ ✓
 $\frac{4}{10} = 0,4$ ✓
 $\frac{7}{20} = 0,35$ ✓

Cevap: C

3. $\frac{12}{25} = \frac{48}{100} = 0,48$

$$\frac{5}{9} = 0,\bar{5}$$

$$1\frac{3}{5} = 1,6$$

$$b = 4, c = 8, a = 5, d = 6$$

$$5 + 4 + 8 - 6 = 11$$

Cevap: A

$$4. \quad \frac{11}{9} = 1,\bar{2}$$

$$\frac{17}{90} = 0,1\bar{8}$$

$$\frac{3}{11} = 0,2\bar{7}$$

$$\frac{5}{3} = 1,\bar{6}$$

Cevap: B

$$5. \quad \begin{array}{r} 15 \\ 3,48 \end{array} \quad \begin{array}{r} 24 \\ 4 \end{array} \quad \begin{array}{r} 8 \\ 8 \end{array}$$

$$2,3\bar{17} \quad 7 \quad 1$$

$$7 + 8 = 15$$

Cevap: D

$$6. \quad \frac{41}{33} = 0,1\bar{23}$$

Cevap: D

$$7. \quad -\frac{2}{6} = -0,\bar{3}$$

Cevap: C

$$8. \quad 2,4\bar{58} = 2,458458...$$

$$2,4\bar{58} = 2,458\bar{888}...$$

$$2,4\bar{58} = 2,458585...$$

$$2,458 = 2,458000...$$

En uzun sürede bitiren sonuncu olur.

Bahadır

Cevap: B

$$9. \quad \text{Elma} = 6,\bar{6} \quad \checkmark$$

$$\text{Portakal} = 7,5$$

$$\text{Ayva} = 7,2$$

$$\text{Muz} = 8,\bar{3} \quad \checkmark$$

Cevap: B

TEST 4

- I Yanlış
II Doğru
III Yanlış

Cevap: B

$$2. \quad x = -\frac{2}{3} \quad y = \frac{11}{5} \quad z = -\frac{5}{4}$$

$$x = -\frac{40}{60} \quad y = \frac{132}{60} \quad z = -\frac{75}{60}$$

$$y > x > z$$

Cevap: C

$$3. \quad 18,3535...$$

$$18,3555...$$

$$a = 4$$

Cevap: B

$$4. \quad <, <, >$$

Cevap: A

$$5. \quad a = \frac{3}{5} \quad b = \frac{2}{3} \quad c = \frac{3}{4}$$

$$a = \frac{36}{60} \quad b = \frac{40}{60} \quad c = \frac{45}{60}$$

$$c > b > a$$

Cevap: D

$$6. \quad a = 0,299...$$

$$b = 0,290...$$

$$c = 0,292...$$

$$a > c > b$$

Cevap: B

$$7. \quad \frac{13}{39} = \frac{1}{3} \quad \frac{11}{44} = \frac{1}{4}$$

$$\frac{5}{3} \text{ ile } \frac{5}{4} \text{ arasında olmalı}$$

$$1,\bar{6} \text{ ile } 1,25 \text{ arası olmalı}$$

Cevap: D

$$8. \quad 30,5$$

$$\frac{63}{2} = 31,5$$

$$30\frac{4}{5} = 30,8$$

$$\frac{151}{5} = 30,2$$

$$\frac{151}{5}, 30,5, 30\frac{4}{5}, \frac{63}{2}$$

Cevap: C

$$9. \quad \text{Ali} = \frac{4}{7} = \frac{32}{56}$$

$$\text{Burak} = \frac{5}{8} = \frac{35}{56}$$

$$\text{Can} = \frac{3}{8} + \frac{3}{7} = \frac{45}{56}$$

Can, Burak, Ali

Cevap: D

BECERİ TEMELLİ SORULAR

TEST 1

$$1. \quad \frac{1}{18} = 0,0\bar{5}$$

Cevap: B

$$2. \quad 3,\bar{4} = \frac{31}{9} \quad 4,\bar{5} = \frac{41}{9}$$

$$\frac{31}{9} + \frac{41}{9} = \frac{72}{9} = 8$$

Cevap: C

$$3. \quad \begin{array}{r} 202 \overline{)165} \\ - 165 \quad \overline{)1,224} \\ \hline 370 \end{array}$$

$$- 330$$

$$700$$

$$- 660$$

$$040$$

$$1,224 = 1,2242424...$$

Cevap: D

$$4. \quad 4,5353... \quad \text{Emel}$$

$$4,5555... \quad \text{Betül}$$

$$4,5315... \quad \text{Canan}$$

$$4,5310... \quad \text{Yeşim}$$

Cevap: C

TEST 2

1. $A = -1\frac{2}{3} = -1,6$
 $B = 2\frac{1}{4} = 2,25$

Cevap: D

2. $\frac{1}{3} > \frac{4}{12} > \frac{1}{4}$
 $\frac{4}{12} > \frac{4}{16} > \frac{4}{16}$
 ▲ en az 13 olur.

Cevap: C

3. $0,24 = \frac{24-2}{90} = \frac{22}{90}$
 $\frac{22}{90} = \frac{11}{45}$
 $11 + 45 = 56$
 56'nın katlarına bakalım
 56, 112, 168, 224, 280

Cevap: C

4.
$$\begin{array}{r} 11 \overline{) 9} \\ - 9 \\ \hline 20 \\ - 18 \\ \hline 20 \end{array} \quad 1,2$$

$$\begin{array}{r} 16 \overline{) 13} \\ - 13 \\ \hline 30 \\ - 26 \\ \hline 40 \\ - 39 \\ \hline 1 \end{array} \quad 1,23...$$

$$\begin{array}{r} 21 \overline{) 19} \\ - 19 \\ \hline 20 \\ - 19 \\ \hline 10 \end{array} \quad 1,1...$$

III, I, II

TEST 3

1. $3\frac{2}{3}$ kalemın boyudur.

$-3\frac{1}{3}$ 'ü gösterir.

Cevap: C

2. $1,6666$ ✗
 $1,6000$ ✓
 $1,6060$ ✓
 $1,6066$ ✗
 $1,6066$ ✗

Cevap: B

3. $\frac{9}{19}$ $\frac{12}{23}$ $\frac{16}{31}$ $\frac{24}{47}$
 yarımđan az yarımđan fazla
 Ece en son bitirir.

Cevap: A

4. $\frac{-8}{24} = \frac{-1}{3}$
 $\frac{8}{-6} = \frac{-4}{3}$
 $\frac{3}{24} = \frac{1}{8}$

Cevap: D

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

RASYONEL SAYILARLA İŞLEMLER

TEST 1

1. $\frac{6}{1} + \frac{2}{3} + \frac{1}{5} = \frac{103}{15}$

Cevap: B

2. $-\frac{3}{5} + \frac{1}{3} - \frac{1}{15} = -\frac{5}{15} = -\frac{1}{3}$
 $-\frac{1}{3}$ 'ün tersi $+\frac{1}{3}$

Cevap: C

3. $\frac{2}{7} + \frac{3}{5} = \frac{31}{35}$
 $\frac{35}{35} - \frac{31}{35} = \frac{4}{35}$

Cevap: D

4. $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$

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

$\frac{5}{6} - \left(-\frac{1}{6}\right) = 1$

Cevap: D

5. $\frac{1}{1} - \frac{1}{2} - \frac{1}{4} - \frac{1}{8} - \frac{1}{16} = \frac{1}{16}$

$\frac{1}{16} + \left(-\frac{1}{16}\right) = 0$

Cevap: C

6. Sadeleştirme yaparız.

$\frac{3}{5} + \frac{33}{55} + \frac{333}{555} + \frac{3333}{5555} + \frac{33333}{55555} =$
 $= \frac{3}{5} + \frac{3}{5} + \frac{3}{5} + \frac{3}{5} + \frac{3}{5} = 3$

Cevap: B

7. $4,79 = \frac{479-47}{90} = \frac{432}{90} = \frac{48}{10}$

$3\frac{1}{5} = \frac{16}{5}$

$\frac{16}{5} + \frac{48}{10} = \frac{34}{10} + \frac{23}{10} = \frac{57}{10}$

$8 = 8$

Cevap: B

8. $-20 + 5\frac{3}{4} = -14\frac{1}{4}$
 $16 - 10\frac{5}{9} = 5\frac{4}{9}$

Cevap: B

TEST 2

1. $2 + \frac{1}{3} = \frac{7}{3}$ $\left(1 - \frac{1}{7}\right) = \frac{6}{7}$

$\frac{17}{3} \cdot \frac{6}{7} = \frac{6}{3} = 2$

Cevap: A

2. $1 + \frac{1}{2} = \frac{3}{2}$ $1 - \frac{1}{2} = \frac{1}{2}$

$\frac{3}{2} \cdot \frac{2}{1} = 3$

Cevap: B

$$3. \quad \frac{14}{10} \cdot \frac{7}{3} = \frac{49}{15}$$

$$\frac{49}{15} : 2 = \frac{49}{15} \cdot \frac{1}{5} = \frac{49}{30}$$

Cevap: D

$$4. \quad \frac{2}{6} \cdot \frac{2}{3} = 4$$

$$18 \cdot \frac{1}{9} = 2$$

$$6 \cdot \frac{1}{6} = 1$$

$$4 + 2 - 1 = 5$$

Cevap: B

$$5. \quad A = -\frac{1}{2}$$

$$B = -1 \cdot \frac{2}{3} = -\frac{5}{3}$$

$$C = \frac{1}{2}$$

$$D = 2 \cdot \frac{1}{3} = \frac{7}{3}$$

$$\frac{7}{3} - \left(-\frac{1}{2}\right) = \frac{17}{6}$$

$$-\frac{5}{3} - \frac{1}{2} = -\frac{13}{6}$$

$$\frac{17}{6} \cdot \frac{1}{13} = -\frac{17}{13}$$

Cevap: A

$$6. \quad -\frac{3}{4} \cdot \frac{4}{3} = -1$$

$$\frac{2}{3} \cdot \frac{1}{6} = \frac{2}{9}$$

$$-1 \div \frac{2}{9} = -1 \cdot \frac{9}{2} = -\frac{9}{2}$$

Cevap: A

$$7. \quad \frac{3}{4} - \frac{5}{12} = \frac{4}{12}$$

$$\frac{4}{12} \div 2 = \frac{4}{12} \cdot \frac{1}{2} = \frac{2}{12} \text{ (kırmızı boru)}$$

$$\frac{5}{12} - \frac{2}{12} = \frac{3}{12} \text{ (mavi boru)}$$

$$\frac{3}{12} + 10 \cdot \frac{2}{12} = \frac{23}{12}$$

Cevap: C

$$8. \quad \frac{3}{2}, -\frac{1}{2}, \frac{4}{5}$$

$$\frac{3}{2} \cdot \frac{2}{5} - \left(-\frac{1}{2}\right)$$

$$\frac{6}{5} + \frac{1}{2} = \frac{17}{10} = 1,7$$

Cevap: D

TEST 3

$$1. \quad 3 \cdot \frac{2}{5} = \frac{6}{5}$$

$$\frac{3}{5} \cdot \frac{1}{2} = \frac{3}{10}$$

$$\frac{6}{5} + \frac{3}{10} = \frac{15}{10} = \frac{3}{2}$$

Cevap: D

$$2. \quad \frac{1}{2} + \frac{2}{3}$$

$$\frac{1}{2} \cdot \frac{3}{2} = \frac{3}{4}$$

$$\frac{2}{3} \cdot \frac{2}{5} = \frac{4}{5}$$

$$\frac{3}{4} + \frac{4}{5} = \frac{31}{20}$$

Cevap: D

$$3. \quad \frac{1}{2} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{9}{10}$$

$$= \frac{1}{10}$$

Cevap: D

$$4. \quad 8 + 4 = 12$$

$$24 \div 12 = 2$$

$$2 - 5 = -3$$

$$-3 \cdot 3 = -9$$

Cevap: A

$$5. \quad 1 - \frac{1}{2} = \frac{1}{2}$$

$$1 \div \frac{1}{2} = 2$$

$$1 - 2 = -1$$

$$1 \div -1 = -1$$

$$1 - (-1) = 2$$

$$\text{Çarpmaya göre tersi } \frac{1}{2}$$

Cevap: A

$$6. \quad \frac{13}{5} - \frac{3}{5} = 2$$

$$\frac{7}{11} + \frac{4}{11} = 1$$

$$-\frac{5}{13} - \frac{8}{13} = -1$$

$$2 + 1 - 1 = 2$$

Cevap: D

$$7. \quad 5 - 8 = -3$$

$$12 \div -3 = -4$$

$$-4 - (-5) = 1 = A$$

$$12 - 10 = 2$$

$$16 \div 2 = 8$$

$$8 - 4 = 4$$

$$4 \cdot 2 = 8 = B$$

$$\frac{18}{2} + 4 = 13$$

Cevap: B

$$8. \quad 1 + \frac{1}{1+2} = \frac{4}{3}$$

$$1 + \frac{1}{1-3} = \frac{3}{2}$$

$$1 - \frac{1}{1-4} = \frac{4}{3}$$

$$\frac{4}{3} + \frac{3}{2} = \frac{17}{6}$$

$$\frac{17}{6} : \frac{4}{3} = \frac{17}{6} \cdot \frac{3}{4} = \frac{17}{8}$$

Cevap: A

$$9. \quad \frac{1}{2} \div \frac{1}{4} = 2$$

$$\frac{1}{8} \div \frac{1}{16} = 2$$

$$2 \cdot 2 = 4$$

A DOĞRU

$$\frac{1}{2} \cdot \frac{1}{4} = \frac{1}{8}$$

$$\frac{1}{8} \cdot \frac{1}{16} = \frac{1}{128}$$

$$\frac{1}{8} \div \frac{1}{128} = \frac{128}{8} = 16$$

B DOĞRU

$$\frac{1}{2} \div \frac{1}{4} = 2$$

$$\frac{1}{8} \cdot \frac{1}{16} = \frac{1}{128}$$

$$2 \cdot \frac{1}{128} = \frac{1}{64} \quad \text{YANLIŞ}$$

Cevap: C

TEST 4

$$1. \quad \frac{1}{2} \div \frac{1}{4} + \frac{1}{4}$$

$$2 + \frac{1}{4} = \frac{9}{4}$$

$$\frac{9}{4} \cdot \frac{1}{2} = \frac{9}{8}$$

Cevap: A

$$2. \quad \frac{\frac{4}{9} - \frac{1}{27}}{\frac{4}{9} + \frac{1}{27}} = \frac{\frac{11}{27}}{\frac{13}{27}}$$

$$\frac{11}{27} \cdot \frac{27}{13} = \frac{11}{13}$$

Cevap: A

$$3. \quad A = \frac{3}{2} - \frac{4}{3} - \frac{5}{4} + \frac{6}{5}$$

$$= 3$$

$$3^3 + 3^2 = 36$$

Cevap: B

$$4. \quad \left(-\frac{1}{2}\right)^3 + \left(-\frac{1}{2}\right)^2 + \left(-\frac{1}{2}\right) + 1$$

$$= -\frac{1}{8} + \frac{1}{4} - \frac{1}{2} + 1$$

$$= \frac{5}{8}$$

Cevap: D

$$5. \quad \frac{\left(\frac{5}{4}\right)^2 - \left(\frac{3}{4}\right)^2}{\left(\frac{1}{3}\right)^3}$$

$$\frac{\frac{25}{16} - \frac{9}{16}}{\frac{1}{27}} = \frac{\frac{16}{16}}{\frac{1}{27}}$$

$$= 27$$

Cevap: D

$$6. \quad \frac{\left(\frac{1}{2}\right)^2 + \left(\frac{1}{2}\right)^3}{\left(\frac{1}{2}\right)^4}$$

$$\frac{\frac{1}{4} + \frac{1}{8}}{\frac{1}{16}} = \frac{\frac{3}{8}}{\frac{1}{16}}$$

$$\frac{3}{8} \cdot \frac{16}{1} = 6$$

Cevap: A

$$7. \quad \frac{1}{4} \cdot \left(-\frac{1}{8}\right) = -\frac{1}{32}$$

$$\frac{1}{16} + \left(-\frac{1}{64}\right) = \frac{3}{64}$$

$$\frac{1}{4} \div \frac{1}{64} = 16$$

$$\frac{1}{16} - \left(-\frac{1}{8}\right) = \frac{3}{16}$$

Cevap: A

$$8. \quad 144 \cdot \frac{1}{4} = 36$$

$$144 - 36 = 108$$

$$108 \cdot \frac{1}{8} = 13,5$$

$$108 - 13,5 = 94,5$$

$$94,5 \cdot \frac{8}{27} = \frac{756}{27} = 28$$

Cevap: A

$$9. \quad \left(2 + \frac{1}{2}\right)^2 = \frac{25}{4}$$

$$\left(2 - \frac{1}{2}\right)^3 = \frac{27}{8}$$

$$\frac{25}{4} \div \frac{27}{8} = \frac{25}{4} \cdot \frac{8}{27}$$

$$= \frac{50}{27}$$

Cevap: A

TEST 5

$$1. \quad 2000 \cdot \frac{3}{10} = 600$$

$$2000 - 600 = 1400$$

Cevap: A

$$2. \quad 300 \cdot \frac{1}{5} = 60$$

$$300 - 60 = 240$$

$$240 \cdot \frac{1}{5} = 48$$

$$240 - 48 = 192$$

Cevap: B

$$3. \quad 1600 \cdot \frac{1}{8} = 200$$

$$1600 - 200 = 1400$$

$$1400 \div 5 = 280$$

Cevap: B

$$4. \quad \frac{\frac{1}{2} - \frac{2}{5}}{\frac{5}{2} - \frac{2}{5}} = \frac{1}{10}$$

$$10 \cdot 18 = 180$$

Cevap: A

$$5. \quad \frac{5}{5} - \frac{2}{5} = \frac{3}{5}$$

$$\frac{3}{5} \text{ 'i } 600 \text{ ise tamamı } 1000$$

$$600 - 500 = 100$$

$$\frac{100}{600} = \frac{1}{6}$$

Cevap: B

$$5. \quad \frac{156}{10} \div \frac{3}{5}$$

$$= \frac{156}{10} \cdot \frac{5}{3} = \frac{156}{6}$$

$$= 26$$

Cevap: B

$$7. \quad \frac{4}{4} + \frac{3}{4} = \frac{7}{4}$$

$$\frac{7}{4} \text{ 'ü } 35 \text{ ise } 20 \text{ 'dir.}$$

$$20 \cdot 2 = 40 \text{ olur.}$$

Cevap: B

$$8. \quad 3 \cdot \frac{3}{5} + \frac{4}{5} = \frac{13}{5}$$

$$\frac{3}{7} \cdot 4 = \frac{12}{7}$$

$$\frac{13}{5} - \frac{12}{7} = \frac{31}{35}$$

Cevap: D

$$9. \quad 4 \cdot \frac{1}{20} + 3 \cdot \frac{1}{10} =$$

$$= \frac{4}{20} + \frac{3}{10} = \frac{10}{20} = \frac{1}{2}$$

$$\frac{1}{2} \div \frac{3}{2} = \frac{1}{2} \cdot \frac{2}{3} = \frac{1}{3}$$

Cevap: B

BECERİ TEMELLİ SORULAR

TEST 1

$$1. \quad \begin{array}{r} 7,20 \\ - 6,45 \\ \hline 0,75 \end{array}$$

$$0,75 \cdot 8 = 6$$

Cevap: C

$$2. \quad \frac{3}{2} + \frac{3}{4} + \frac{7}{4} = \frac{16}{4} = 4$$

$$2 \text{ kalem} + 2 \text{ silgi} + 2 \text{ uç kutusu} = 4$$

$$4 \div 2 = 2$$

$$2 - \frac{3}{4} = \frac{5}{4} \text{ (kalem)}$$

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

Cevap: C

$$3. \quad 120 \cdot \frac{5}{2} = 300$$

$$300 \div \frac{3}{2} = 300 \cdot \frac{2}{3} = 200$$

Cevap: A

$$4. \quad \begin{aligned} 3\frac{2}{5} &= 2\frac{7}{5} \\ 4\frac{1}{5} + 2\frac{12}{5} &= \frac{21}{5} + \frac{22}{5} \\ &= \frac{43}{5} \\ \frac{43}{5} \cdot \frac{5}{5} &= 43 \end{aligned}$$

Cevap: D

$$5. \quad \begin{aligned} 1,6 &= \frac{16-1}{9} = \frac{15}{9} \\ \frac{15}{9} \cdot \frac{9}{9} &= 15 \text{ dm} \\ &= 1,5 \text{ m} \end{aligned}$$

Cevap: B

TEST 2

$$1. \quad \frac{3}{2} \cdot \frac{3}{2} = \frac{9}{4}$$

$$\frac{9}{4} \cdot 4 = 9$$

$$\frac{9}{4} \cdot \frac{7}{3} = \frac{63}{4}$$

$$\begin{aligned} \frac{63}{2} - \frac{9}{1} &= \frac{45}{2} \\ &= 22\frac{1}{2} \end{aligned}$$

Cevap: D

$$2. \quad \frac{12}{5} - \frac{3}{2} = \frac{9}{10}$$

$$\frac{9}{10} \cdot \frac{3}{2} = \frac{27}{20}$$

$$\frac{3}{2} \cdot \frac{3}{2} = \frac{9}{4}$$

$$\frac{9}{4} - \frac{27}{20} = \frac{18}{20} = \frac{9}{10}$$

Cevap: D

$$3. \quad -\frac{1}{2} \cdot \frac{1}{2} = -\frac{1}{4}$$

$$-\frac{1}{4} + (-4) = -\frac{17}{4}$$

$$\frac{1}{2} + 2 = \frac{5}{2}$$

$$\frac{5}{2} \cdot \left(-\frac{5}{2}\right) = -\frac{25}{4}$$

$$\left(-\frac{17}{4}\right) + \left(-\frac{25}{4}\right) = -\frac{42}{4} = -\frac{21}{2}$$

Cevap: D

$$4. \quad \frac{3}{4} - \frac{5}{12} = \frac{4}{12} = \frac{1}{3}$$

$$\frac{5}{12} - \frac{1}{3} = \frac{1}{12}$$

$$\frac{1}{12} + \frac{5}{12} = \frac{6}{12} = \frac{1}{2}$$

$$\frac{1}{2} \cdot 2 = 1$$

Cevap: C

$$5. \quad \frac{2}{3} \cdot 3 = 2, \frac{4}{5} \cdot 5 = 4, \frac{6}{7} \cdot 7 = 6$$

$$\frac{3}{4} \div 4 = \frac{3}{16}$$

$$\frac{5}{6} \div 6 = \frac{5}{36}$$

$$2 \cdot 4 \cdot 6 \cdot \frac{3}{16} \cdot \frac{5}{36} = \frac{5}{4}$$

$$\frac{5}{4} \text{ 'ün çarpmaya göre tersi } \frac{4}{5} \text{ 'tir.}$$

Cevap: C

TEST 3

$$1. \quad 2 - \frac{1}{2} = \frac{3}{2}$$

$$1 \div \frac{3}{2} = \frac{2}{3}$$

$$2 - \frac{2}{3} = \frac{4}{3}$$

$$1 \div \frac{4}{3} = \frac{3}{4}$$

$$2 - \frac{3}{4} = \frac{5}{4} \text{ (Ayşe)}$$

$$3 - \frac{1}{3} = \frac{8}{3}$$

$$1 \div \frac{8}{3} = \frac{3}{8}$$

$$3 - \frac{3}{8} = \frac{21}{8}$$

$$1 \div \frac{21}{8} = \frac{8}{21}$$

$$3 - \frac{8}{21} = \frac{55}{21} \text{ (Mert)}$$

$$\frac{5}{4} \div \frac{55}{21} = \frac{5}{4} \cdot \frac{21}{55} = \frac{21}{44}$$

Cevap: A

$$2. \quad 5\frac{1}{2} - 2 \cdot \left(1\frac{1}{2}\right)$$

$$\frac{11}{2} - \frac{6}{2} = \frac{5}{2}$$

$$\left(5\frac{1}{4} + 4\frac{1}{4}\right) + \frac{5}{2}$$

$$= 9\frac{1}{2} + \frac{5}{2} = 12$$

$$\frac{6}{12} \cdot \frac{7}{2} = 42$$

Cevap: A

$$3. \quad \blacksquare = 4 \quad \blacktriangle = 9$$

$$\bullet = 6 \quad \star = 1$$

$$4961 \rightarrow 4 + 9 + 6 + 1 = 20$$

Cevap: C

$$4. \quad \frac{27}{2} \cdot \frac{21}{4} = \frac{567}{8}$$

$$\frac{3}{8} \cdot \frac{3}{8} = \frac{9}{64}$$

$$\frac{567}{8} \div \frac{9}{64} = \frac{567}{8} \cdot \frac{64}{9} = \frac{63}{1} \cdot \frac{8}{1} = 504$$

$$504 \cdot 12,5 = 6300$$

Cevap: A

TEST 4

- $\frac{3}{2} \cdot \frac{2}{3} = 1$
 $\frac{3}{2} + 1 = \frac{5}{2}$
 $\frac{5}{2} \cdot \frac{2}{5} = 1$
 $\frac{5}{2} + 1 = \frac{7}{2} = 3\frac{1}{2}$
- $2 \cdot \frac{9}{2} = 9$ elma
 $\frac{3}{5} \cdot \frac{7}{4} = \frac{21}{10} = 2,1$ portakal
 $\frac{37}{5} \cdot \frac{1}{4} = 9,25$ muz
 $9 + 2,1 + 9,25 = 20,35$
- $2 \cdot 240 = 480$
 $240 \cdot \frac{1}{2} = 120$
 $240 \cdot \frac{1}{3} = 80$
 $240 \cdot \frac{3}{4} = 180$
 $1. \text{ gün} = 860$
 $2 \cdot 180 = 360$
 $180 \cdot \frac{1}{2} = 90$
 $180 \cdot \frac{1}{3} = 60$
 $180 \cdot \frac{3}{4} = 135$
 $2. \text{ gün}$
 $860 + 645 = 1505$
- $350 \cdot \frac{4}{10} = 140$
 $500 \cdot \frac{3}{10} = 150$
 $140 + 150 = 290$

Cevap: B

Cevap: A

Cevap: C

Cevap: A

TEST 5

- $\frac{8}{8} - \frac{1}{8} = \frac{7}{8}$
 $\frac{7}{8} \cdot \frac{2}{7} = \frac{2}{8}$
 $\frac{7}{8} - \frac{2}{8} = \frac{5}{8}$
 $\frac{5}{8} \cdot \frac{1}{5} = \frac{1}{8}$
 $\frac{5}{8} - \frac{1}{8} = \frac{4}{8}$
 $\frac{4}{8}$ 'i 8 ise tamamı 16'dır.
 $\frac{16}{1} \cdot \frac{1}{8} = 2$
- $\frac{4}{5} - \frac{1}{4} = \frac{11}{20}$
 $\frac{5}{6} - \frac{1}{3} = \frac{3}{6} = \frac{1}{2}$
 $A = \frac{11}{20} \cdot \frac{1}{2} = \frac{11}{40}$
- $\frac{2}{5} \cdot 2 + \frac{3}{10} + \frac{2}{10} \cdot \frac{4}{25} + 12 \cdot \frac{1}{5}$
 $\frac{4}{5} + \frac{3}{10} + \frac{8}{5} + \frac{12}{5}$
 $\frac{8 + 3 + 16 + 24}{10} = \frac{51}{10} \text{ m}$
 $\frac{51}{10} \text{ m} = 510 \text{ cm}$
 $510 \div 30 = 17$
- $\frac{1}{4} \cdot \frac{4}{3} = 1$
 $\frac{4}{5} \cdot \frac{3}{5} = \frac{12}{25}$
 $1 - \frac{12}{25} = \frac{13}{25}$

Cevap: D

Cevap: A

Cevap: A

Cevap: B

TEST 6

- $12 \cdot \frac{5}{4} = 15$

$$15 \div \frac{3}{5} = 15 \cdot \frac{5}{3} = 25$$

Cevap: C

- $\frac{3}{2} + \frac{11}{4} = \frac{17}{4}$ $\frac{17}{4} \cdot 2 = \frac{34}{4}$
 $\frac{3}{4} + \frac{7}{4} = \frac{10}{4}$ $\frac{10}{4} \cdot 2 = \frac{20}{4}$
 $1. \text{ Şekil} = \frac{34}{4} + \frac{7}{4} + \frac{7}{4} = \frac{48}{4} = 12$
 $2. \text{ Şekil} = \frac{34}{4} + \frac{3}{4} + \frac{3}{4} = \frac{40}{4} = 10$
 $3. \text{ Şekil} = \frac{20}{4} + \frac{11}{4} + \frac{11}{4} = \frac{42}{4}$

Cevap: C

$$3 + \frac{25}{2} = \frac{31}{2}$$

Cevap: C

$$\frac{7}{4} + \frac{5}{8} = \frac{19}{8}$$

$$\frac{19}{8} \cdot 2 = \frac{19}{4}$$

$$\frac{19}{4} + \frac{5}{16} + \frac{5}{16} = \frac{86}{16} = \frac{43}{8}$$

Cevap: A

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

CEBİRSEL İFADELER

TEST 1

- $(4x - 3) + (2x - 5) + (2x - 5)$
 $= 8x - 13$
- $(3a - 5) + (3a - 5) = 6a - 10$
 $(2a - 1) + (2a - 1) = 4a - 2$
 $(6a - 10) + (4a - 2) = 10a - 12$
- $(7x - 12) + (-8x + 4)$
 $= -x - 8$
 $2 \text{ ve } 3$
- $(3x - 5) - (-x + 8)$

Cevap: D

Cevap: C

Cevap: B

$$=4x - 13$$

Cevap: C

$$\begin{aligned} 5. \quad (4x - 3) + (4x - 3) &= 8x - 6 \\ (8x - 6) + (8x - 6) + (8x - 6) \\ &= 24x - 18 \end{aligned}$$

Cevap: C

$$6. \quad x + (x - 27) = 2x - 27$$

Cevap: C

$$\begin{aligned} 7. \quad (3x + 4) + (x + 2) &= 4x + 6 \\ (4x + 6) + (4x + 6) &= 8x + 12 \\ (8x + 12) - (x + 2) &= 7x + 10 \\ (7x + 10) + (7x + 10) &= 14x + 20 \\ (14x + 20) + (4x - 6) &= 18x + 14 \end{aligned}$$

Cevap: C

$$\begin{aligned} 8. \quad (3x + 2y) + (2x - y) + (x - 3y) &= 6x - 2y \\ (6x - 2y) + (3x + 2y) &= 9x \\ 9x + 9x &= 18x \end{aligned}$$

Cevap: D

$$\begin{aligned} 9. \quad (2x + 10) + (x - 4) &= 3x + 6 \\ (3x + 6) + (3x + 6) + (3x + 6) &= 9x + 18 \end{aligned}$$

Cevap: A

TEST 2

$$1. \quad 3 \cdot (2x + 4) = 6x + 12$$

Cevap: C

$$2. \quad 3 \cdot (8x - 12) = 24x - 36$$

Cevap: D

$$\begin{aligned} 3. \quad -8(-2x + 4) &= 16x - 32 \\ 7 \cdot (-2x + 4) &= -14x + 28 \\ (16x - 32) + (-14x + 28) \\ &= 2x - 4 \end{aligned}$$

Cevap: D

$$\begin{aligned} 4. \quad 2 \cdot (3a - 5) &= 6a - 10 \\ 4 \cdot (2a + 4) &= 8a + 16 \end{aligned}$$

$$= 14a + 6$$

Cevap: A

$$\begin{aligned} 5. \quad 2(2a + 1) &= 4a + 2 \\ 2(3a - 1) &= 6a - 2 \\ &= 10a \\ 20 - 10a \end{aligned}$$

Cevap: B

$$\begin{aligned} 6. \quad (x - 1) \cdot 3 + 1 \\ 3x - 3 + 1 &= 3x - 2 \end{aligned}$$

Cevap: D

$$\begin{aligned} 7. \quad 3(x + 2) &= 3x + 6 \\ (3x + 6) + (x + 2) &= 4x + 8 \\ 2 \cdot (4x + 8) &= 8x + 16 \\ 8x + 16 + 2x &= 10x + 16 \end{aligned}$$

Cevap: A

$$\begin{aligned} 8. \quad 12 + 10 &= 22 \\ 3x - 10 + 10 &= 3x \\ 3x \cdot 22 &= 66x \\ (3x - 10) \cdot 12 &= 36x - 120 \\ 66 - (36x - 120) \\ 30x + 120 \end{aligned}$$

Cevap: A

$$\begin{aligned} 9. \quad 4 \cdot (2x - 1) &= 8x - 4 \\ (8x - 4) + (2x - 1) &= 10x - 5 \\ (10x - 5) + (8x - 4) &= 18x - 9 \\ 2 \cdot (18x - 9) &= 36x - 18 \end{aligned}$$

Cevap: B

TEST 3

$$1. \quad 4n + 1$$

Cevap: B

$$\begin{aligned} 2. \quad 1, 4, 7, \dots \\ 2n - 2 \\ 31 + 2 &= 33 \\ 33 \div 3 &= 11 \end{aligned}$$

Cevap: B

$$\begin{aligned} 3. \quad 63 - 57 &= 6 \\ 57 + 9 &= 66 \\ 66 \div 6 &= 11 \end{aligned}$$

Cevap: B

$$\begin{aligned} 4. \quad 1, 5, 9, \dots \\ 4n - 3 \end{aligned}$$

Cevap: D

$$\begin{aligned} 5. \quad 1, 4, 7, \dots \\ 3n - 2 \\ 3 \cdot 100 - 2 &= 298 \end{aligned}$$

Cevap: C

$$\begin{aligned} 6. \quad 40 - 26 &= 14 \\ 14 \div 2 &= 7 \\ 3 \cdot 7 &= 21 \\ 26 - 21 &= 5 \end{aligned}$$

Cevap: B

$$\begin{aligned} 7. \quad 1, 3, 5, \dots \\ 2n - 1 \\ 41 + 1 &= 42 \\ 42 \div 2 &= 21 \end{aligned}$$

Cevap: C

$$\begin{aligned} 8. \quad 8, 15, 22, \dots \\ 7n + 1 \\ 7 \cdot 20 + 1 &= 141 \end{aligned}$$

Cevap: A

$$\begin{array}{r} 103 \overline{) 4} \\ \underline{- 8} \\ 23 \\ \underline{- 20} \\ 3 \quad (\text{İrem}) \end{array}$$

$$\begin{array}{r} 103 \overline{) 3} \\ \underline{- 9} \\ 13 \\ \underline{- 12} \\ 1 \quad (\text{Mavi}) \end{array}$$

Cevap: D

BECERİ TEMELLİ SORULAR

TEST 1

- $(4x + 3y) + (3x - y) = 7x + 2y$
 $(7x + 2y) \cdot 2 = 14x + 4y$
 $3x - y - y = 3x - 2y$
 $2(3x - 2y) = 6x - 4y$
 $(14x + 4y) + (6x - 4y)$
 $= 20x$

Cevap: A

- $20 - 1 = 19$
 $19 \cdot (3x - 5) = 57x - 95$
 $4(57x - 95) = 228x - 380$

Cevap: D

- $500 - 245 = 255$

$$\begin{array}{r} 255 \overline{) 4} \\ - 24 \overline{) 63} \\ 15 \end{array}$$
 $63 + 1 = 64$

$$\begin{array}{r} - 12 \overline{) 3} \end{array}$$

 $950 - 475 = 475$

$$\begin{array}{r} 475 \overline{) 8} \\ - 40 \overline{) 59} \\ 75 \end{array}$$
 $59 + 1 = 60$

$$\begin{array}{r} - 72 \overline{) 3} \end{array}$$

 $60 + 64 = 124$

Cevap: D

- $2x + 2y + 2m$
 $2(x + y + m)$

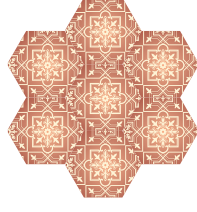
Cevap: C

TEST 2

- $2a - 150 + 500 = 2a + 350$ (buzdolabı)
 $2a - 150 - 400 = 2a - 550$ (süpürge)
 $(2a - 150) + (2a + 350) + (2a - 550)$
 $= 6a - 350$
 $(6a - 350) - (1400 - 2a) = 8a - 1750$

Cevap: C

2.



$$18 \cdot (3a - 2b) = 54a - 36b$$

Cevap: D

- $3, 7, 11, 15, \dots$
 $4n - 1 - n = 3n - 1$
 $1001 + 1 = 1002$

$$\begin{array}{r} 1002 \overline{) 3} \\ - 9 \overline{) 334} \\ 10 \end{array}$$

$$\begin{array}{r} - 9 \overline{) 12} \\ - 12 \overline{) 00} \end{array}$$

Cevap: C

- $$\begin{array}{c} a \\ \boxed{} \end{array} \frac{a}{3}$$

 $a - \frac{a}{3} = \frac{2a}{3}$

$$\frac{8 \cdot a}{1} + 8 \cdot \frac{a}{3} + 6 \cdot \frac{2a}{3}$$

$$\frac{24a + 8a + 12a}{3} = \frac{44a}{3}$$

 $14\frac{2}{3}a$

Cevap: A

TEST 3

- $42x + 51 = 3 \cdot (14x + 17)$
 $4(14x + 17) = 56x + 68$
- $(4x + 1) - (4x - 3) = 4$
 $(3x - 1) - (2x + 2) = x - 3$
 $6x - (5x - 4) = x + 4$
 $5x - 2 - (4x + 1) = x - 3$
 $4 \cdot 15 + 10 \cdot (x - 3) + 20 \cdot (x + 4) + 30 \cdot (x - 3)$
 $= 60 + 10x - 30 + 20x + 80 + 30x - 90$
 $= 60x + 20$

Cevap: B

Cevap: A

- $2 \cdot (2x - 5) = 4x - 10$
 $(2x - 5) + (4x - 10) + 3$
 $6x - 12$

Cevap: C

- $x + 3y - x = 3y$
 $3y + 3x = 3(x + y)$

Cevap: A

TEST 4

- $4, 6, 8, \dots$
 $2n + 2$
 $2 \cdot 10 + 2 = 22$
 $22 \cdot (2x + 3) = 44x + 66$
- $32, 56, 80, \dots$
 $24n + 8$

Cevap: C

Cevap: D

- $\frac{5 \text{ kr}}{100} \quad \frac{10 \text{ kr}}{60} \quad \frac{25 \text{ kr}}{80} \quad \frac{50 \text{ kr}}{2x+10} \quad \frac{1 \text{ ₺}}{x}$
 $5 + 6 + 20 + \frac{100x + 500}{100} + x$
 $31 + x + 5 + x$
 $2x + 36$

Cevap: B

- $4x \cdot 20 = 80x$
 $80x + 40$

Cevap: B

TEST 5

- $\frac{\text{İstanbul}}{6x} \quad \frac{\text{Bursa}}{3x} \quad \frac{\text{Balıkesir}}{2x}$
 $6x + 15$
- $3x \cdot 2 = 6x$
 $(x + 2) \cdot 2 = 2x + 4$
 $6x + 2x + 4 = 8x + 4$
 $2 \cdot (8x + 4) = 16x + 8$

Cevap: C

Cevap: B

3. $1, 5, 9, 13, \dots$
 $4n - 3$

Cevap: B

4. $(2x + 5) \cdot 2 + 10 = 4x + 20$
 $(4x + 20) + (2x + 5) = 6x + 25$
 $2 \cdot (6x + 25) = 12x + 50$

Cevap: B

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

EŞİTLİK VE DENKLEM

TEST 1

1. $360 \cdot 4 = 1440$
 $1440 \div 3 = 480$

Cevap: D

2. $62 - 45 = 17$

Cevap: C

3. $3 + 9 = 12$
 $12 \div 2 = 6$

Cevap: C

4. $53 - 47 = 6$
 $17 - 11 = 6$
 $43 - 37 = 6$
 $51 - 47 = 4$

Cevap: C

5. $8 - 17 = -9$
 $-9 - 5 = -14$
 $-9 + 23 = 14$
 $6 - 14 = -8$
 $(-14) + (-8) = -22$

Cevap: D

6. $8 + \triangle = \triangle + 4 + x$
 $x = 4$

Cevap: C

7. $\square \square = \triangle \triangle \triangle \triangle \triangle$
 $4 \text{ kare için } 10 \text{ üçgen}$

Cevap: B

8. $\circ \circ = \square \square \square$

Cevap: C

9. $\triangle \circ \square = \square \circ \triangle$

Cevap: D

TEST 2

1. $24 + y = 2y + 8$

Cevap: B

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

Cevap: D

3. $\frac{\text{Kız}}{x} \quad \frac{\text{Erkek}}{x+6}$
 $x + x + 6 = 30$

Cevap: B

4. $\text{Aybike} = x - 15$
 $\text{Nehir} = x - 10$
 $\text{Deniz} = x - 5$
 $\text{Bahadır} = x$
 $4x - 30 = 190$

Cevap: B

5. $\frac{\text{kısa}}{x} \quad \frac{\text{uzun}}{3x-4}$
 $4x - 4 = 36$

Cevap: D

6. $\text{İncir} = 2x$
 $\text{Erik} = 4x$
 $\text{Şeftali} = x$
 $2x + 4x + x = 56$

Cevap: A

7. $\frac{\text{Tavuk}}{2x-5} + \frac{\text{Horoz}}{x} = 46$

Cevap: B

8. $\frac{\text{Bisiklet}}{x} \quad \frac{\text{Araba}}{4x+20}$

$2x + 4 \cdot (4x + 20) = 530$

Cevap: C

9. $\frac{25 \text{ kr}}{x} \quad \frac{50 \text{ kr}}{40-x}$

$25x + 50 \cdot (40 - x) = 1750$

Cevap: C

TEST 3

1. $6x - 15 - 6 = x + 4$
 $6x - 21 = x + 4$
 $5x = 25$
 $x = 5$

Cevap: C

2. $2x - 5 - (-3x + 4)$
 $5x - 9 = 3x - 1$
 $2x = 8$
 $x = 4$

Cevap: B

3. $4x - 2 = -4 \quad x = -\frac{1}{2}$
 $-2x + 4 = -2 \quad x = 3$
 $-4x + 2 = 4 \quad x = -\frac{1}{2}$
 $2x - 4 = -2 \quad x = 1$

Cevap: C

4. $(2x - 3) + (3x - 12)$
 $5x - 15 = 8x + 3$
 $-18 = 3x$
 $x = -6$

Cevap: C

5. $\square = -2$
 $\circ = -4$
 $\triangle = -6$
 $-6 + (-4) - (-2) = -8$

Cevap: A

6. $(-4x + 8) - (6 - 4x)$
 $(6 - 4x) + (2x - 4) = -2x + 2$
 $2 \cdot (-2x + 2) = -4x + 4$

$$\begin{aligned}-4x + 4 &= -8 \\ -4x &= -12 \\ x &= 3\end{aligned}$$

Cevap: A

$$\begin{aligned}7. \quad 3x + 7 &= x + 9 \\ 2x &= 2 \\ x &= 1\end{aligned}$$

Cevap: C

$$\begin{aligned}8. \quad (x + 2) \cdot 3 - 12 - 2 &= x \\ 3x + 6 - 14 &= x \\ 2x &= 8 \\ x &= 4\end{aligned}$$

Cevap: B

$$\begin{aligned}9. \quad \text{Ayça} &= -4044 \\ \text{Dilek} &= 1,5 \\ \text{Alper} &= 60 \\ \text{Cemil} &= 7\end{aligned}$$

Cevap: D

TEST 4

$$\begin{aligned}1. \quad 2(2x + 3) + 3 \cdot (x + 2) \\ 7x + 12 &= 47 \\ 7x &= 35 \quad x = 5 \\ 2 \cdot 5 + 3 &= 13\end{aligned}$$

Cevap: D

$$\begin{aligned}2. \quad 4a - 1 &= 63 \\ 4a &= 64 \\ a &= 16\end{aligned}$$

Cevap: B

$$\begin{aligned}3. \quad \begin{array}{ccc} \text{E} & \text{K} & \text{Ş} \\ 2x & x & 2x + 5 \end{array} \\ 5x + 5 &= 70 \\ 5x &= 65 \\ x &= 13 \\ 2 \cdot 13 + 5 &= 31\end{aligned}$$

Cevap: C

$$\begin{aligned}4. \quad 3x - 4 &= \frac{92}{4} \\ 3x - 4 &= 23 \\ 3x &= 27 \\ x &= 9\end{aligned}$$

Cevap: B

$$\begin{aligned}5. \quad 2x + (42 - x) \cdot 3 &= 108 \\ 2x + 126 - 3x &= 108 \\ 18 &= x\end{aligned}$$

Cevap: B

$$\begin{aligned}6. \quad \begin{array}{cc} \text{Limonlu} & \text{Çilekli} \\ 2x + 4 & x \end{array} \\ 3x + 4 &= 58 \\ 3x &= 54 \\ x &= 18 \\ 2 \cdot 18 + 4 &= 40\end{aligned}$$

Cevap: D

$$\begin{aligned}7. \quad \begin{array}{cccc} \frac{1}{x-30} & \frac{2}{x-20} & \frac{3}{x-10} & \frac{4}{x} \end{array} \\ 4x - 60 &= 480 \\ 4x &= 540 \\ x &= 135\end{aligned}$$

Cevap: D

$$\begin{aligned}8. \quad 3 \cdot x &= (50 - x) \cdot 2 \\ 3x &= 100 - 2x \\ 5x &= 100 \\ x &= 20 \\ 3 \cdot 20 &= 60\end{aligned}$$

Cevap: D

$$\begin{aligned}9. \quad 2x + 3 &= 3x - 2 \\ x &= 5 \\ 4y - 5 &= 2y + 7 \\ 2y &= 12 \\ y &= 6 \\ 2 \cdot 5 + 3 &= 13 \\ 2 \cdot 6 + 7 &= 19 \\ 13 \cdot 19 &= 247\end{aligned}$$

Cevap: D

BECERİ TEMELLİ SORULAR

TEST 1

$$\begin{aligned}1. \quad 36 \cdot (3x - 2) &= 30 \cdot (3x + 3) \\ 108x - 72 &= 90x + 90 \\ 18x &= 162 \\ x &= 9 \\ 3 \cdot 9 + 9 &= 36 \\ 3 \cdot 9 + 3 &= 30 \\ 30 \cdot 30 &= 900 \\ 900 \div 36 &= 25\end{aligned}$$

Cevap: C

$$\begin{aligned}2. \quad \begin{array}{ccc} \text{A} & \text{B} & \text{C} \\ x - 13 & x - 7 & x \end{array} \\ 3x - 20 &= 55\end{aligned}$$

Cevap: B

$$\begin{aligned}3. \quad 1. \text{ ve } 2. \text{ teraziden elma} &= 4 \text{ erik} \\ 330 \div 11 &= 30 \\ 5 \cdot 30 &= 150\end{aligned}$$

Cevap: C

$$\begin{aligned}4. \quad 50 \text{ kitap} + 15 &= 65 \\ 52 \text{ kitap} + 15 &= 67 \\ 58 \text{ kitap} + 15 &= 73\end{aligned}$$

Cevap: D

TEST 2

$$\begin{aligned}1. \quad 2 \triangle &= 3 \square \\ 6 \triangle &= 9 \square\end{aligned}$$

Cevap: C

$$\begin{aligned}2. \quad \begin{array}{c} \text{---} x \\ \text{---} 2x + 4 \end{array}\end{aligned}$$

$$\begin{aligned}\text{Çevre} &= 6x + 8 \\ 2 \cdot (6x + 8) - 2x &= 166 \\ 12x + 16 - 2x &= 166 \\ 10x &= 150 \\ x &= 15 \\ 15 \cdot 34 &= 510\end{aligned}$$

Cevap: A

3. $3x + 42 = 90$
 $3x = 48$
 $x = 16$

Cevap: C

4. $24 + 3x = 14 + 5x$
 $2x = 10$
 $x = 5$

Cevap: B

TEST 3

1. $5x + 500 = 600$
 $5x = 100$
 $x = 20$

Cevap: C

2. Sıra = x
 $(x - 1)3 = 2x + 5$
 $3x - 3 = 2x + 5$
 $x = 8$
 $2 \cdot 8 + 5 = 21$

Cevap: D

3. $4x - 40 = 360$
 $4x = 400$
 $x = 100$
 $2 \cdot 100 - 90 = 110$
 $100 + 50 = 150$
 $150 - 110 = 40$
 $40 \cdot 120 = 4800$

Cevap: A

4. $3 \cdot x + (840 - x) \cdot 5 = 3200$
 $3x + 4200 - 5x = 3200$
 $1000 = 2x$
 $x = 500$

Cevap: C

TEST 4

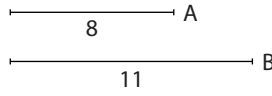
1. $\frac{S}{2x} \quad \frac{E}{4x} \quad \frac{K}{x}$
 $12 \cdot 2x + 15 \cdot 4x + 18 \cdot x = 3060$

Cevap: C

2. $15 \cdot x + (30 - x) \cdot 20 = 510$
 $15x + 600 - 20x = 510$
 $5x = 90$
 $x = 18$

Cevap: B

3. $8 + 2x + 6 - 1 = 2x + 13$
 $9 + 4x - 1 - 1 = 4x + 7$
 $4x + 7 = 2x + 13$
 $2x = 6$
 $x = 3$
 $2 \cdot 3 + 13 = 19$ kişi var.



Ali 2 kişi geriye gider.

Cevap: A

4. 6 elma + 1 armut = 5 armut + 1 elma
 $5 \text{ elma} = 4 \text{ armut}$
 4 kat
 $20 \text{ elma} = 16 \text{ armut}$

Cevap: B

TEST 5

1. $2 \cdot x = 3 \cdot (100 - x)$
 $2x = 300 - 3x$
 $5x = 300$
 $x = 60$
 $2 \cdot 60 = 120$
 $120 \cdot 25 = 3000 \text{ cm}$
 $= 30 \text{ m}$

Cevap: C

2. $5a - 3a = 30 + 6$
 $2a = 36$
 $a = 18$
 $7x - 9 = 5x - 3$
 $2x = 6$
 $x = 3$
 $5y - 5 = 2y + 10$
 $3y = 15$
 $y = 5$

$5 \cdot 18 - 30 = 60$ (kare)
 $5 \cdot 3 - 3 = 12$ (dikdörtgen)
 $2 \cdot 5 + 10 = 20$

$\frac{3 \cdot 5}{60 \cdot 60} = 15$
 $\frac{20 \cdot 12}{1 \cdot 1}$

Cevap: C

3. $8x$
 x

$8 \cdot x \cdot x \cdot 10 = 720$

$x = 3$

162x çevrenin en büyük değeri olur.

$162 \cdot 3 = 486$

Cevap: B

4. $6 \cdot 20 = 120 \text{ mm}$
 $11 \text{ cm} = 110 \text{ mm}$
 $120 - 6 - 6 = 112$

2 tahta dışında tüm tahtalar birleşir.

Cevap: C

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

ORAN VE ORANTI

TEST 1

1. $\begin{array}{r} 5200 \overline{) 6,5} \\ - 520 \overline{) 80} \\ \hline 0000 \end{array}$

Cevap: B

2. $\begin{array}{r} 20 \overline{) 16} \\ - 16 \overline{) 1,25} \\ \hline 40 \\ 32 \\ 80 \end{array}$

Cevap: B

3. $\begin{array}{r} 35 \overline{) 8} \\ - 32 \overline{) 4,375} \\ \hline 30 \\ - 24 \\ \hline 60 \\ - 56 \\ \hline 40 \end{array}$

Cevap: B

$$\begin{array}{r} 825 \overline{) 30} \\ - 60 \overline{) 27,5} \\ \hline 225 \\ - 210 \overline{) 150} \\ \hline \end{array}$$

$$27,5 - 25 = 2,5$$

Cevap: C

$$5. \quad 800 \text{ gram} = 0,8 \text{ kg}$$

$$\begin{array}{r} 960 \overline{) 0,8} \\ - 8 \overline{) 120} \\ \hline 16 \\ - 16 \overline{) 00} \\ \hline \end{array}$$

Cevap: C

$$6. \quad 13 \text{ ₺} = 1300 \text{ kuruş}$$

$$\begin{array}{r} 1300 \overline{) 500} \\ - 1000 \overline{) 2,6} \\ \hline 3000 \\ - 3000 \overline{) 0000} \\ \hline \end{array}$$

Cevap: D

$$7. \quad \frac{31,25}{5} = \frac{3125}{500}$$

$$\begin{array}{r} 3125 \overline{) 500} \\ - 3000 \overline{) 6,25} \\ \hline 1250 \\ - 1000 \overline{) 2500} \\ \hline \end{array}$$

Cevap: C

$$8. \quad \begin{array}{r} 1024 \\ \times 2 \\ \hline 2048 \end{array}$$

$$\begin{array}{r} 2048 \overline{) 8} \\ - 16 \overline{) 256} \\ \hline 44 \\ - 40 \overline{) 48} \\ \hline 48 \\ - 48 \overline{) 00} \\ \hline \end{array}$$

Cevap: C

$$9. \quad \begin{array}{r} 186 \overline{) 30} \\ - 180 \overline{) 6,2} \\ \hline 60 \\ - 60 \overline{) 00} \\ \hline \end{array}$$

$$31, \overline{1} = \frac{311 - 31}{9} = \frac{280}{9}$$

$$\begin{array}{r} 4968 \overline{) 800} \\ - 4800 \overline{) 6,21} \\ \hline 1680 \\ - 1600 \overline{) 00800} \\ \hline 800 \\ - 800 \overline{) 000} \\ \hline \end{array}$$

$$\begin{array}{r} 7428 \overline{) 1200} \\ - 7200 \overline{) 6,1} \\ \hline 02280 \\ - 1200 \overline{) 000} \\ \hline \end{array}$$

TEST 2

$$1. \quad \frac{6}{24} = \frac{1}{4}$$

Cevap: A

$$2. \quad \begin{array}{c} \text{Kalem} \\ 2k \end{array} \quad \begin{array}{c} \text{Silgi} \\ k \end{array}$$

$$2k + k = 3k$$

Cevap: B

$$3. \quad \frac{12}{30} = \frac{2}{5}$$

Cevap: B

$$4. \quad \begin{array}{c} \text{Halil} \\ 2k \end{array} \quad \begin{array}{c} \text{Hakan} \\ 3k \end{array}$$

$$2k + 3k = 340$$

$$5k = 340$$

$$k = 68$$

$$68 \cdot 3 = 204$$

Cevap: C

$$5. \quad \begin{array}{l} x = 4k \\ 8k + 9k = 68 \\ 17k = 68 \\ k = 4 \\ 9k - 4k = 5k \\ 5 \cdot 4 = 20 \end{array} \quad \begin{array}{l} y = 9k \end{array}$$

Cevap: B

$$6. \quad \frac{a}{b} = \frac{6}{8} \quad \frac{b}{c} = \frac{8}{5}$$

$$\begin{array}{r} 280 \overline{) 45} \\ - 270 \overline{) 6,22} \\ \hline 100 \\ - 90 \overline{) 100} \\ \hline 10 \\ - 90 \overline{) 10} \\ \hline \end{array}$$

$$\frac{a}{c} = \frac{6}{5} \text{ olur.}$$

Cevap: B

$$7. \quad \begin{array}{l} |AB| = 3k \\ |BC| = 4k \\ 3k = 45 \text{ ise } k = 15 \\ 3k + 4k = 7k \\ 7 \cdot 15 = 105 \end{array}$$

Cevap: C

$$8. \quad \begin{array}{l} 15 \cdot 18 = 270 \\ \frac{18}{15} = \frac{6}{5} \end{array}$$

Cevap: A

$$9. \quad \begin{array}{l} \frac{\text{çikolatalı}}{\text{limonlu}} = \frac{3}{2} \\ \frac{\text{limonlu}}{\text{çilekli}} = \frac{4}{3} \end{array}$$

$$\frac{\text{çikolatalı}}{\text{limonlu}} = \frac{6}{4}$$

$$6k + 4k + 3k = 13k$$

52 sayısı 13'ün katıdır.

Cevap: B

TEST 3

$$1. \quad \begin{array}{c} 2 \\ \swarrow \quad \searrow \\ \frac{6}{15} = \frac{12}{x} \\ \nwarrow \quad \swarrow \\ 2 \end{array} \quad x = 30 \text{ olur.}$$

Cevap: C

$$2. \quad \begin{array}{c} 3 \quad 16 \\ \swarrow \quad \searrow \\ \frac{27}{18} = \frac{3}{2} = \frac{48}{32} \\ \nwarrow \quad \swarrow \\ 2 \quad 16 \end{array}$$

Cevap: D

$$3. \quad \begin{array}{c} 4 \\ \swarrow \quad \searrow \\ \frac{3x-1}{6} = \frac{160}{120} \\ \nwarrow \quad \swarrow \\ 3 \end{array}$$

$$9x - 3 = 24$$

$$9x = 27$$

$$x = 3$$

Cevap: B

$$4. \quad m = 3k \quad n = 5k$$

$$8k = 96 \text{ ise } k = 12$$

$$5 \cdot 12 = 60$$

Cevap: D

$$5. \quad \frac{30}{129} \times \frac{40}{x}$$

$$\frac{30 \cdot x}{30} = \frac{40 \cdot 129}{30}$$

$$x = 172$$

Cevap: B

$$6. \quad a = 3k$$

$$b = 4k$$

$$7k = 84 \text{ ise } k = 12$$

$$4 \cdot 12 = 48$$

Cevap: C

$$7. \quad \frac{3}{15} = \frac{1,8}{x} \quad x = 9$$

$$\frac{9}{30} = \frac{1,8}{y} \quad y = 6$$

$$\frac{10}{25} = \frac{1,8}{z} \quad z = 4,5$$

$$\frac{24}{40} = \frac{1,8}{t} \quad t = 3$$

$$9 + 6 + 4,5 + 3 = 22,5$$

Cevap: B

$$8. \quad \frac{2}{3} \times \frac{30}{x}$$

$$2x = 90$$

$$x = 45$$

Cevap: B

$$9. \quad \begin{array}{l} \text{A} \\ \frac{3}{5} = \frac{12}{x} \\ x = 20 \end{array} \quad \begin{array}{l} \text{B} \\ \frac{4}{7} = \frac{12}{y} \\ y = 21 \end{array}$$

$$12 \text{ günde } 41 \text{ ürün}$$

$$164 \div 41 = 4$$

$$12 \cdot 4 = 48$$

Cevap: A

TEST 4

$$1. \quad \frac{8}{12} \times \frac{14}{x} = \frac{12 \cdot 4}{8}$$

$$x = 21$$

Cevap: D

$$2. \quad \begin{array}{r} 315 \overline{) 3} \\ \underline{- 3} \\ 015 \\ \underline{- 15} \\ 00 \end{array}$$

Cevap: C

$$3. \quad \frac{16}{12} \times \frac{20}{(y-2)} = \frac{12 \cdot 20}{16}$$

$$y - 2 = 15$$

$$y = 17$$

Cevap: B

$$4. \quad \frac{3}{5} = \frac{21}{b} \text{ ise } b = 35$$

$$\frac{3}{5} = \frac{c}{75} \text{ ise } c = 45$$

$$\frac{3}{5} = \frac{12}{a} \text{ ise } a = 20$$

$$a + b + c = 100$$

Cevap: A

$$5. \quad \frac{2,5}{4} \times \frac{150}{x} = \frac{4 \cdot 150}{2,5}$$

$$x = 240$$

Cevap: B

$$6. \quad \frac{3}{24} \times \frac{30}{x} = \frac{30}{240}$$

$$x = 240$$

$$60 + 240 = 300 \text{ cm} = 3 \text{ m}$$

Cevap: C

$$7. \quad 11k = 121 \text{ ise } k = 11$$

$$3k + 4k + 11k = 18k$$

$$18 \cdot 11 = 198$$

Cevap: C

$$8. \quad \frac{3000}{x} \times \frac{2500}{3000} = \frac{3000 \cdot 3000}{2500}$$

$$x = 3600$$

Cevap: B

$$9. \quad 12k + 4k + 5 = 21k$$

$$21k = 945$$

$$k = 45$$

$$12 \cdot 45 = 540$$

Cevap: D

TEST 5

$$1. \quad \frac{8}{12} \times \frac{6}{x} = \frac{12 \cdot 6}{12x}$$

$$12x = 48 \quad x = 4$$

Cevap: A

$$2. \quad \frac{2}{5} \times \frac{60}{a} = \frac{5a \cdot 120}{5a}$$

$$5a = 120 \text{ ise } a = 24$$

$$\frac{2}{b} \times \frac{60}{15} = \frac{15b \cdot 120}{15b}$$

$$15b = 120 \text{ ise } b = 8$$

$$24 + 8 = 32$$

Cevap: D

$$3. \quad \frac{6}{3} \times \frac{8}{(y+3)} = \frac{3y + 9}{3y}$$

$$3y + 9 = 48$$

$$3y = 39 \text{ ise } y = 13$$

Cevap: C

$$4. \quad \frac{12}{10} \times \frac{30}{x} = \frac{10 \cdot 30}{10x}$$

$$10x = 360 \quad x = 36$$

Cevap: D

$$5. \quad \frac{6 \text{ musluk}}{x} \times \frac{15 \text{ saat}}{10} = \frac{10 \cdot 15}{10x}$$

$$10x = 90$$

$$x = 9$$

$$9 - 6 = 3$$

Cevap: A

6. $\frac{10}{x} = \frac{20}{15}$

$$10x = 200$$

$$20 - 10 = 10$$

$$x = 20$$

Cevap: B

7. $\frac{90}{x} = \frac{50}{45}$

$$45x = 90 \cdot 50$$

$$x = 100$$

$$100 - 90 = 10$$

Cevap: B

8. 10 gün sonra

20 balığa	_____	20 gün
25 balığa	_____	x gün

$$25x = 20 \cdot 20$$

$$x = 16$$

Cevap: B

9. Ters orantılı olduğu için en fazla şekeri Aybike, en az şekeri Nehir alır.

Cevap: C

TEST 5

1. $\frac{6}{x} = \frac{16}{12}$

$$12x = 96$$

$$x = 8$$

$$8 - 6 = 2$$

Cevap: A

2. $12 - 7 = 5$

24	_____	5
30	_____	x

$$30x = 120$$

$$x = 4$$

Cevap: A

3. $\frac{\text{Şeker}}{\text{Un}} = \frac{9}{12}$ $\frac{\text{Yağ}}{\text{Un}} = \frac{4}{12}$

$$9k + 12k + 4k = 900$$

$$25k = 900$$

$$k = 36$$

$$36 \cdot 9 = 324$$

Cevap: A

4. $\frac{x}{(x-4)} = \frac{24}{72}$

$$24x = 72x - 288$$

$$48x = 288$$

$$x = 6$$

Cevap: B

5. 1 maymun 1 haftada 35 kg muz

$$35 \cdot 2 = 70$$

Cevap: D

6. $12k + 14k + 10k = 36k$

36'nın katı olmalı

Cevap: D

7. $\frac{5}{x} = \frac{5 \cdot 5}{10 \cdot 10}$

$$25x = 500$$

$$x = 20$$

Cevap: C

8. b ₺ ters orantılı olarak paylaştırıldığı için b > a ise Ayşe daha fazla para alır.

Cevap: C

9.

fasulye	nohut	mercimek	barbunya
6k	4k	3k	6k

I ✓

II ✓

III ✓

BECERİ TEMELLİ SORULAR

TEST 1

1. $\frac{900}{5} = \frac{180}{x}$

$$900x = 900$$

$$x = 1$$

$$900 - 180 = 720$$

1 dakikada 180 mb iner. Hız 4 katıda çıktığı için 1 dakikada 720 mb iner.

$$1 + 1 = 2$$

Cevap: A

2. $5k = 45$ $k = 9$

$\frac{\text{Sevim}}{18}$	$\frac{\text{Neşe}}{27}$
---------------------------	--------------------------

$$45 \cdot \frac{2}{3} = 30 \text{ Sevim}$$

$$30 - 18 = 12 \text{ cevizi Neşe'ye verir.}$$

$$\frac{12}{30} = \frac{2}{5}$$

Cevap: A

3. $4k + 5k = 90$

$$k = 10$$

İç açılar

$\frac{a}{90}$	$\frac{b}{50}$	$\frac{c}{40}$
----------------	----------------	----------------

Dar açılar

$\frac{a}{90}$	$\frac{b}{130}$	$\frac{c}{140}$
----------------	-----------------	-----------------

$$9 - 13 - 14$$

Cevap: D

4. $\frac{18.42}{12 \text{ dak.}}$ $\frac{19.27}{0.57}$

$\frac{12}{57} \times \frac{28 \text{ GB}}{x}$

$$x = \frac{19 \cdot 7}{57 \cdot 28} = 133$$

Cevap: C

TEST 2

1. $2k + 3k + 5k + 7k + 11k + 13k = 164$

$$41k = 164$$

$$k = 4$$

$$13 \cdot 4 = 52$$

$$2 \cdot 4 = 8$$

$$52^2 - 8^2 = 2640$$

Cevap: A

2. $8k + 5k = 13k$
 $13k = 195$ ise $k = 15$
 $8 \cdot 15 = 120$
 $5 \cdot 15 = 75$
 $120 \div 4 = 30$
 $75 \div 3 = 25$
 $\frac{30}{25} = \frac{6}{5}$

Cevap: B

3. $3 \cdot \frac{3}{2} \cdot \frac{3}{2} \cdot \frac{3}{2} \cdot \frac{3}{2} \cdot \frac{3}{2}$
 $= \frac{729}{32}$ (1. şekil)
 $3 \div \frac{729}{32}$
 $\frac{3}{1} \cdot \frac{32}{729} = \frac{32}{243}$

Cevap: C

4. $\frac{5,4 \cdot 20000000}{100000}$
 $= 1080 \text{ km}$
 $1080 \div 90 = 12 \text{ saat}$

7.30 olur.

Cevap: C

5. Sarı paket Beyaz paket
 $3k$ $4k$
 $7k = 35$ ise $k = 5$
Sarı yumurta Beyaz yumurta
 $3 \cdot 5 \cdot 10 = 150$ $4 \cdot 5 \cdot 15 = 300$
 $150 + 300 = 450$

Cevap: C

TEST 3

1. $\frac{3,2 \cdot 20000000}{100000}$
 $= 640 \text{ km}$

Cevap: D

2. 1 inek 1 boğanın 2 katı saman tüketiyor.
 $30 \text{ boğa} = 15 \text{ inek}$
 $35 \text{ inek} \text{ — } 20$
 $20 \text{ inek} \text{ — } x$
 $x = 35$

Cevap: C

3. $3k + 4k + 5k = 180$
 $15k = 180$
 $k = 15$

$3 \cdot 15 = 45$

$4 \cdot 15 = 60$

$5 \cdot 15 = 75$

I ✓

II ✓

III ✓

Cevap: D

4. $\frac{1 \cdot 3}{8 \cdot 15} = \frac{3}{6} = \frac{1}{2}$

Cevap: C

5. $\frac{\text{Normal}}{\text{Çıtır}} = \frac{3}{5}$ $\frac{\text{Şekerli}}{\text{Normal}} = \frac{2}{3}$
 $3k + 5k + 2k = 1000$
 $10k = 1000$
 $k = 100$

Normal Şekerli Çıtır
 300 g 200 g 500 g

$6 \text{ t} + 3,6 \text{ t} + 8 \text{ t} = 17,6 \text{ t}$

Cevap: C

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

YÜZDELER

TEST 1

1. $\frac{1}{5} = 0,2$
 (2)

$\%50 = \frac{1}{2}$

$\frac{4}{5} = \frac{8}{10} = 0,8$
 (2)

$\frac{10}{100} = 0,1$

Cevap: D

2. $\frac{40}{100} = \frac{2}{5} = \frac{6}{15}$
 (3)

$6 - 2 = 4$

Cevap: C

3. $360 \cdot \frac{20}{100} = 72$
 $360 \cdot \frac{5}{100} = 1800$
 $1800 + 72 = 1872$

Cevap: D

4. Ahmet Mehmet
 24 100
 $\frac{100}{24} = \frac{25}{6}$

Cevap: A

5. $A = 180 \cdot \frac{140}{100} = 252$
 $B = 240 \cdot \frac{70}{100} = 168$
 $252 + 168 = 420$

Cevap: C

6. $\frac{65}{100} = 0,65 = \%65$

Cevap: D

7. $240 \cdot \frac{60}{100} = 144$

$210 \cdot \frac{70}{100} = 147$

$250 \cdot \frac{55}{100} = 137,5$

$200 \cdot \frac{70}{100} = 140$

Cevap: C

8. $80 \cdot \frac{75}{100} = 60$

$90 \cdot \frac{70}{100} = 63$

$70 \cdot \frac{90}{100} = 63$

$85 \cdot \frac{80}{100} = 68$

Cevap: A

9. $180 \cdot 8 = 1440$
 $\frac{\%96}{\%100} \times \frac{1440}{x}$
 $x = \frac{1440 \cdot 100}{96} = 1500$

$150 \cdot 9 = 1350$

$$\begin{array}{r} \%90 \quad \times \quad 1350 \\ \%100 \quad \quad x \\ \hline x = \frac{1350 \cdot 100}{90} = 1500 \\ 1500 + 1500 = 3000 \end{array}$$

Cevap: C

TEST 2

$$1. \quad \frac{\frac{60}{180}}{\frac{50}{150}} = \frac{60}{50} = \frac{120}{100}$$

Cevap: A

$$2. \quad \frac{5}{5} - \frac{2}{5} = \frac{3}{5}$$

$$\frac{3}{5} = \frac{60}{100} = \%60$$

Cevap: C

$$3. \quad \frac{90}{150} = \frac{3}{5} = \frac{60}{100}$$

Cevap: A

$$4. \quad \frac{\frac{8}{24}}{\frac{10}{30}} = \frac{8}{10} = \frac{80}{100}$$

Cevap: C

$$5. \quad 225 - 90 = 135$$

$$\frac{\frac{27}{135}}{\frac{45}{225}} = \frac{27}{45} = \frac{3}{5} = \frac{60}{100}$$

Cevap: D

$$6. \quad 174 - 120 = 54$$

$$\frac{\frac{9}{54}}{\frac{20}{120}} = \frac{9}{20} = \frac{45}{100}$$

Cevap: C

$$7. \quad 40 - 36 = 4$$

$$26 - 4 = 22$$

$$\frac{\frac{11}{22}}{\frac{40}{20}} = \frac{11}{20} = \frac{55}{100}$$

Cevap: B

$$8. \quad \frac{16}{64} = \frac{1}{4} = \frac{25}{100}$$

Cevap: C

$$9. \quad \frac{\frac{240}{800}}{\frac{3}{10}} = \frac{30}{100}$$

Cevap: C

TEST 3

$$1. \quad \frac{\frac{28}{560}}{\frac{7}{35}} = 196$$

$$560 + 196 = 756$$

Cevap: D

$$2. \quad \frac{110}{100} = \frac{352}{x}$$

$$x = \frac{352 \cdot 100}{110} = 320$$

Cevap: B

$$3. \quad 100 \text{ olsun}$$

$$\%30 \text{ kâr ile } 130$$

$$\%30 \text{ indirim}$$

$$130 - 39 = 91 \text{ olur.}$$

$$\%9 \text{ zarar}$$

$$130 \cdot \frac{30}{100} = 39$$

Cevap: B

$$4. \quad 850 \cdot \frac{18}{100} = 153$$

$$850 + 153 = 1003$$

Cevap: C

$$5. \quad 120 \cdot \frac{30}{100} = 36$$

$$120 - 36 = 84$$

$$120 + 84 = 204$$

Cevap: C

$$6. \quad \frac{118}{100} = \frac{177}{x}$$

$$x = \frac{177 \cdot 100}{118} = 150$$

Cevap: C

$$7. \quad a - \frac{20a}{100} = \frac{80a}{100}$$

$$a + \frac{20a}{100} = \frac{120a}{100}$$

$$\frac{120a}{100} - \frac{80a}{100} = \frac{40a}{100}$$

$$\frac{2}{5}a$$

Cevap: B

$$8. \quad \frac{118}{100} = \frac{88500}{x}$$

$$x = \frac{88500 \cdot 100}{118} = 75500$$

$$75000 \cdot \frac{5}{100} = 3750$$

$$75000 - 3750 = 71250$$

Cevap: A

$$9. \quad \frac{300}{1000} = \%30$$

$$\frac{500}{1000} = \%50$$

$$\frac{50}{1000} - \frac{30}{100} = \frac{20}{100}$$

Cevap: C

TEST 4

$$1. \quad 75 \cdot \frac{\frac{1}{20}}{\frac{100}{5}} = 15$$

$$75 - 15 = 60$$

$$60 \cdot \frac{18}{100} = 10,8$$

$$60 + 10,8 = 70,8$$

Cevap: B

$$2. \quad \frac{80}{120} = \frac{192}{x}$$

$$x = \frac{120 \cdot 192}{80} = 320$$

$$x = 288$$

Cevap: C

3. $3 \cdot 5 = 15$

$$\begin{array}{r} 30 \\ 70 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 15 \\ x \end{array}$$

$$x = \frac{70 \cdot 15}{30} = 35$$

Cevap: D

4. $\begin{array}{r} 2400 \\ 100 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 432 \\ x \end{array}$

$$x = \frac{432 \cdot 100}{2400} = 18$$

Cevap: B

5. $\begin{array}{r} 118 \\ 110 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 17,7 \\ x \end{array}$

$$x = \frac{17,7 \cdot 100}{118}$$

$x = 15$

Cevap: B

6. $\begin{array}{r} 15 \\ 115 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 12 \\ x \end{array}$

$$x = \frac{115 \cdot 12}{15} = 92$$

Cevap: C

7. 100
%20 zam 120
%10 indirim $120 - 12 = 108$
100
%20 indirim 80
%10 zam $80 + 8 = 88$
Az susamlı %8 artar.
 $200 \cdot \frac{8}{100} = 16$ kuruş artar.
Çok susamlı %12 azalır.
 $200 \cdot \frac{12}{100} = 24$ kuruş azalır.
 $24 + 16 = 40$ kuruş fark var.

Cevap: D

8. 1. Seçenek

Maaş 100 olsun

$$120 \cdot 6 = 720$$

$$144 \cdot 6 = 864$$

$$+ 1584$$

2. Seçenek

$$130 \cdot 6 = 780$$

$$143 \cdot 6 = 858$$

$$+ 1638$$

3. Seçenek

$$110 \cdot 6 = 660$$

$$143 \cdot 6 = 858$$

$$+ 1518$$

4. Seçenek

$$125 \cdot 6 = 750$$

$$143,75 \cdot 6 = 862,5$$

$$+ 1612,5$$

Cevap: B

9. $\begin{array}{r} 118 \\ 110 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 590 \\ x \end{array}$

$$x = \frac{590 \cdot 82}{118} = 410$$

$$\begin{array}{r} 118 \\ 82 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 2950 \\ x \end{array}$$

$$x = \frac{2950 \cdot 82}{118} = 2050$$

$$\begin{array}{r} 118 \\ 82 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 4130 \\ x \end{array}$$

$$x = \frac{4130 \cdot 82}{118} = 2870$$

$$\begin{array}{r} 118 \\ 82 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 1770 \\ x \end{array}$$

$$x = \frac{1770 \cdot 82}{118} = 1230$$

$$\begin{array}{r} 410 \\ 2050 \\ 2870 \\ + 1230 \\ \hline 6560 \end{array}$$

Cevap: A

BECERİ TEMELLİ SORULAR

TEST 1

1. $2 \cdot 120 + 60 = 300$

$$300 \cdot \frac{30}{100} = 90$$

$$300 - 90 = 210$$

$$210 \cdot 7 = 1470$$

Cevap: C

2. $\begin{array}{r} 118 \\ 110 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 354 \\ x \end{array}$

$$x = \frac{354 \cdot 100}{118} = 300$$

$$\frac{300 \cdot 80}{100} = 240$$

$$354 \cdot \frac{70}{100} = 247,8$$

$$247,8 - 240 = 7,8$$

Cevap: C

3. $100 + 70 = 170$

$$\begin{array}{r} 170 \\ 100 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 306 \\ x \end{array}$$

$$x = \frac{100 \cdot 306}{170} = 180$$

$$306 + 306 + 180 = 792$$

Cevap: D

4. $\frac{P}{420} \quad \frac{R}{600} \quad \frac{S}{900}$

$$\begin{array}{r} 75 \\ 25 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 420 \\ x \end{array}$$

$$x = \frac{420 \cdot 25}{75} = 140 (P)$$

$$\begin{array}{r} 80 \\ 20 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 600 \\ x \end{array}$$

$$x = \frac{600 \cdot 20}{80} = 150 (R)$$

$$\begin{array}{r} 90 \\ 10 \end{array} \begin{array}{r} \times \\ \times \end{array} \begin{array}{r} 900 \\ x \end{array}$$

$$x = \frac{900 \cdot 10}{90} = 140(S)$$

$$140 + 150 + 100 = 390$$

Cevap: B

5. $450 \cdot 8 = 3600$

$$\begin{array}{r} 75 \\ 25 \end{array} \begin{array}{r} \times \\ \times \end{array} \begin{array}{r} 3600 \\ x \end{array}$$

$$x = \frac{25 \cdot 3600}{75} = 1200$$

Cevap: B

TEST 2

1. $\frac{\%60}{\%100} \begin{array}{r} \times \\ \times \end{array} \begin{array}{r} 30 \\ x \end{array}$

$$x = \frac{30 \cdot 100}{60} = 50$$

Cevap: C

2. $\begin{array}{r} 20 \\ 100 \end{array} \begin{array}{r} \times \\ \times \end{array} \begin{array}{r} 96 \\ x \end{array}$

$$x = 480$$

$$480 \div 80 = 6$$

$$\begin{array}{r} 30 \\ 100 \end{array} \begin{array}{r} \times \\ \times \end{array} \begin{array}{r} 96 \\ x \end{array}$$

$$x = 320$$

$$320 \div 80 = 4$$

$$6 + 4 = 10$$

Cevap: C

3. $\frac{390}{500} = \frac{78}{100} = \%78$

$$\frac{560}{700} = \frac{80}{100} = \%80$$

$$\frac{600}{800} = \frac{75}{100} = \%75$$

$$\frac{720}{1000} = \frac{72}{100} = \%72$$

Cevap: B

4. $110 \cdot \frac{30}{100} = 33$

$$110 \cdot \frac{50}{100} = 55$$

$$143 - 165$$

$$598 \text{ ₺}$$

Cevap: B

5. $600 + 200 \cdot 2 + 100 \cdot 5 = 1500$

$$1500 \cdot \frac{30}{100} = 450$$

Cevap: A

6. $6 \cdot 4 = 24$ $9 \cdot 6 = 54$

$$54 - 24 = 30$$

$$\begin{array}{r} 24 \\ 100 \end{array} \begin{array}{r} \times \\ \times \end{array} \begin{array}{r} 30 \\ x \end{array}$$

$$x = \frac{30 \cdot 100}{24} = 125$$

Cevap: C

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

DOĞRULAR VE AÇILAR

TEST 1

1. $x + 10 = 40$ $x = 30$

Cevap: B

2. $60 \div 2 = 30$

$$30 + 60 = 90$$

$$180 - 90 = 90$$

Cevap: D

3. I $\times$

II $\times$

III $\checkmark$

Cevap: A

4. $90 \div 2 = 45$

$$90 + 45 = 135$$

Cevap: C

5. $90 \div 2 = 45$

$$45 \div 2 = 22,5$$

$$90 - 22,5 = 67,5$$

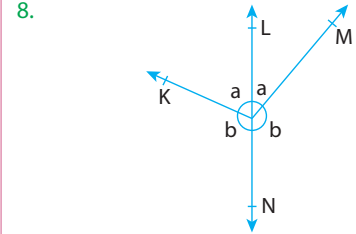
Cevap: C

6. L noktasında geçer.

Cevap: B

7. $180 \div 2 = 90$

Cevap: C



$$2a + 2b = 360$$

$$a + b = 180$$

Cevap: D

9. $40 \div 2 = 20$

$$30 \div 2 = 15$$

$$20 + 15 = 35$$

$$180 - 35 = 145$$

Cevap: C

TEST 2

1. b ile c iç ters açılardır.

Cevap: D

2. $x = 180 - 50 = 130$

Cevap: C

3. $3x - 10 = x + 10$

$$2x = 20$$

$$x = 10$$

Cevap: B

4. $20 + 35 = 55$

Cevap: A

5. $180 - 160 = 20$

$$20 + 40 = 60$$

$$180 - 60 = 120$$

$$180 - 120 = 60$$

Cevap: B

6. $180 - 60 = 120$
 $120 - 60 = 60$

Cevap: A

7. $180 - 130 = 50$
 $y = 50$
 $50 + 50 = 100$
 $180 - 100 = 80 = x$
 $80 - 50 = 30$

Cevap: B

8. $80 + 10 = 120 - 50$
 $60 = 40$
 $a = 15$

$8 \cdot 15 + 10 = 130$
 $x = 130$ $y = 130$
 $130 + 130 = 260$

Cevap: C

9. c ile b ters açıdır.
a ile e yöndeş açılardır.
 $a + f = 180^\circ$ 'dir.
e ile c dış ters açılar değil.

Cevap: C

BECERİ TEMELLİ SORULAR

TEST 1

1. $a = b$ 'dir.
 $180 - \cancel{a} + \cancel{a} + a + c = 360$
 $c = 180 - a$

Cevap: B

2. II, III, I

Cevap: C

3. $x + 180 - b + a = 360$
 $x = 180 + b - a$

Cevap: B

4. $m(\text{AGB}) = x$ olsun

$x + x + 90 + x + 15 + x + 15 = 180$
 $4x + 120 = 180$
 $4x = 60$
 $x = 15$
 $15 + 15 + 90 + 30 = 150$

Cevap: D

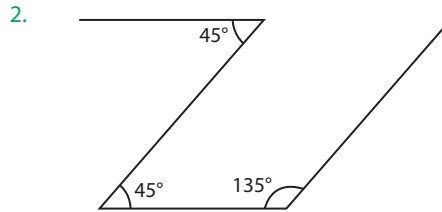
5. $180 - 156 = 24$
 $24 \div 2 = 12$
 $12 \cdot 3 = 36$
 $180 - (90 + 36) = 54$
 $54 \div 4 = 13,5$
 $3 \cdot 13,5 = 40,5$
 $180 - 40,5 = 139,5$

Cevap: D

TEST 2

1. $90 - 40 = 50$
 $90 - 50 = 40$

Cevap: C



Cevap: D

3. $x = 120$ $y = 70$
 $120 + 70 = 190$

Cevap: C

4. $180 - 140 = 40$
 $40 + 50 = 90$

Cevap: A

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

ÇOKGENLER

TEST 1

1. Düzgün çokgenin hem kenarları hemde açıları eşit olmalıdır.

Cevap: D

2. $90 - 60 = 30$

Cevap: D

3. $180 - 108 = 72$
 $72 \div 2 = 36$

Cevap: C

4. $360 - (120 + 108) = 132$

Cevap: D

5. $180 - 120 = 60$
 $60 \div 2 = 30$

Cevap: A

6. $80 + 80 = 160$
 $180 - 160 = 20$
 $180 - 20 = 160$

Cevap: A

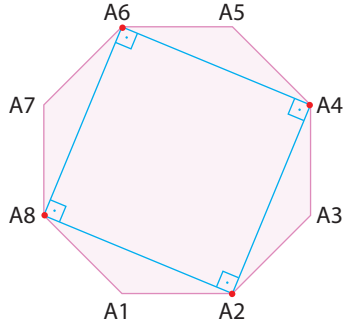
7. $180 - 140 = 40$
 $360 \div 40 = 9$
 $9 \cdot 4 = 36$

Cevap: B

8. $135 - 120 = 15$
 $180 - 15 = 165$
 $165 \div 2 = 82,5$

Cevap: D

9.



Cevap: C

TEST 2

1. $105 + 90 + 100 + 120 = 415$
 $540 - 415 = 125$

Cevap: A

2. $540 - 270 = 270$
 $270 \div 2 = 135$

Cevap: B

3. $(n - 2) \cdot 180$
 $(6 - 2) \cdot 180 = 720$

Cevap: C

4. $100 + 75 + 60 = 235$
 $360 - 235 = 125$

Cevap: C

5. $540 - 90 = 450$
 $450 \div 2 = 225$
 $540 - 225 = 315$

Cevap: B

6. $x + x + 1 + x + 2 + x + 3 + x + 4$
 $5x + 10 = 360$
 $x = 70$
 $70 + 4 = 74$
 $180 - 74 = 106$

Cevap: D

7. $3 \cdot 40 = 120$
 $360 - 120 = 240$
 $240 \div 30 = 8$

$$8 + 3 = 11$$

Cevap: D

8. Dış açı 360° 'dir.
 $360 \cdot 4 = 1440$
 $(n - 2) \cdot 180 = 1440$

$$\begin{array}{r} 1440 \overline{) 180} \\ \underline{1440} \\ 0000 \end{array}$$

$$n - 2 = 8$$

$$n = 10$$

9. $180 - 162 = 18$
 $360 \div 18 = 20$

TEST 3

1. $30 + 30 = 60$
 $180 - 60 = 120$

2. $y = 50$
 $x = 180 - 50 = 130$
 $130 - 50 = 80$

3. $180 - 45 = 135$

4. $180 - 120 = 60$
 $60 \div 2 = 30$
 $30 + 120 = 150$
 $180 - 150 = 30$

5. $90 + 60 = 150$
 $180 - 150 = 30$
 $30 \div 2 = 15$

6. $180 - 110 = 70$
 $70 + 70 = 140$
 $180 - 140 = 40$
 $110 - 40 = 70$
 $90 - 70 = 20$
 $70 - 20 = 50$

Cevap: D

7. $2x = x + 10$
 $x = 10$
 $2 \cdot 10 = 20$
 $90 - 20 = 70 = y$
 $10 + 70 = 80$

Cevap: C

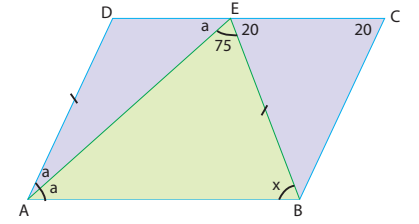
Cevap: A

8. 6 tane

Cevap: C

Cevap: B

9.



Cevap: B

$$3a + 75 = 180$$

$$3a = 105$$

$$a = 35$$

$$75 + 35 = 110$$

$$180 - 110 = 70$$

Cevap: D

Cevap: A

Cevap: B

TEST 4

1. $6 \cdot 5 = 30$

Cevap: A

Cevap: B

2. $\frac{12 \cdot 10}{2} = 60$

Cevap: D

3. $\frac{5 \cdot 12}{2} = 30$

Cevap: D

$$30 \cdot 4 = 120$$

Cevap: C

$$4. \frac{(9+5) \cdot 6}{2} = 42$$

Cevap: D

$$5. \frac{(6+8) \cdot 7}{2} = 49$$

Cevap: B

$$6. 4 \cdot 5 = 20$$

Cevap: C

$$7. \frac{\frac{(10+4) \cdot \cancel{2}}{\cancel{2}}}{\frac{(8+4) \cdot \cancel{2}}{\cancel{2}}} = \frac{14}{12} = \frac{7}{6}$$

Cevap: A

$$8. \begin{array}{r} 8 \\ 4 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 20 \text{ ise} \\ x \end{array}$$

$$x = 10$$

Cevap: A

$$9. 3 \cdot 4 = 5 \cdot x$$

$$x = \frac{12}{5} = 2,4$$

Cevap: C

TEST 5

$$1. 5,5 + 16 = 21,5$$

$$21,5 \cdot 16 = 344$$

Cevap: B

$$2. 6 + 6 = 12$$

$$15 - 12 = 3$$

$$\frac{3 \cdot 6}{2} = 9$$

Cevap: D

$$3. 21$$

Cevap: C

$$4. 4 \cdot 4 = 16$$

$$\frac{4 \cdot x}{2} = 16 \text{ ise } x = 8$$

$$8 + 4 = 12$$

Cevap: D

$$5. \frac{6 \cdot 7}{2} = 21$$

$$\frac{3 \cdot 9}{2} = 13,5$$

$$21 + 13,5 = 34,5$$

Cevap: D

$$6. 7 \text{ olur.}$$

Cevap: C

$$7. A = 8 \cdot 3 = 24$$

$$B = 26 + 3 + 3 = 32$$

$$C = 12 + 7,5 = 19,5$$

$$D = 16 + 14 = 30$$

Cevap: B

$$8. 18 + 36 = 54$$

Cevap: A

$$9. 12 \cdot 10 = 120$$

$$15 \cdot 9 = 135$$

$$135 - 120 = 15$$

Cevap: C

BECERİ TEMELLİ SORULAR

TEST 1

$$1. \begin{array}{c} 2,5x \\ \text{ } \\ x \end{array}$$

$$2 \cdot (9,5x + 5x) = 29x$$

$$29x = 348 \text{ ise } x = 12$$

$$12 \cdot 30 = 360$$

Cevap: C

$$2. 103,5 - 94,5 = 9$$

Cevap: D

$$3. 6 \cdot 9 = 54$$

$$3 \cdot 3 = 9$$

$$5 \cdot 1 = 5$$

$$2 \cdot 2 = 4$$

$$54 + 9 + 5 + 4 = 72$$

Cevap: C

$$4. 32 \cdot 15 = 480$$

$$480 - 377 = 103$$

$$5 \cdot 8 = 40$$

$$103 - 40 = 63$$

$$\frac{18 \cdot h}{2} = \frac{63}{2}$$

$$h = 3,5$$

Cevap: C

$$5. \text{ Yeşil boyalı alan mavi boyalı alandan fazladır.}$$

Cevap: C

$$6. \begin{array}{r} 1 \cdot 200 \\ 2 \cdot 100 \\ 4 \cdot 50 \\ 5 \cdot 40 \rightarrow 90 \\ 8 \cdot 25 \rightarrow 66 \\ 10 \cdot 20 \rightarrow + 60 \\ \hline 216 \end{array}$$

Cevap: B

TEST 2

$$1. 24 \div 6 = 4$$

$$4 \cdot 8 = 32$$

$$4 \cdot 4 + 2 \cdot 8 = 32$$

$$32 + 32 = 64$$

Cevap: A

$$2. \begin{array}{c} 6 \text{ cm} \\ \text{ } \\ 6 \text{ cm} \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{c} 12 \text{ cm} \end{array}$$

$$\frac{(12+6) \cdot 6}{2} = 54$$

$$54 \cdot 8 = 432$$

Cevap: C

$$3. 120 + 90 + 108 = 318$$

$$360 - 318 = 42$$

Cevap: B

4. $18 \cdot 8 + 6 \cdot 6 = 180$
 $6 \cdot 8 + 6 \cdot 6 = 84$
 $180 - 84 = 96$

Cevap: C

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

ÇEMBER VE DAİRE

TEST 1

1. 90° dir.

Cevap: C

2. $360 - 220 = 140$

Cevap: A

3. $180 - 100 = 80$
 $80 \div 2 = 40$

Cevap: D

4. $180 - 45 = 135$

Cevap: D

5. $180 - 150 = 30$
 $30 \div 2 = 15$

Cevap: D

6. $2x + 10 = 100$
 $2x = 90$
 $x = 45$

Cevap: C

7. [OR] çizilir.
2 tane eşkenar üçgen oluşur.
 $60 + 60 = 120$

Cevap: C

8. $40 + 50 = 90$

Cevap: C

9. $360 \div 6 = 60$
 $60 + 60 = 120$

Cevap: C

TEST 2

1. $2 \cdot 3 \cdot r = 30$
 $r = 4$

Cevap: B

2. $2x - 4 = x + 1$
 $x = 5$
 $2\pi r \quad 2 \cdot 3 \cdot 6 = 36$

Cevap: D

3. $24 \div 4 = 6$
 $6 \div 2 = 3$
 $2\pi r \quad 2 \cdot 3 \cdot 3 = 18$

Cevap: B

4. $2 \cdot 3 \cdot 11 = 66$
 $66 \div 2 = 33$
 $33 + 11 + 11 = 55$

Cevap: C

5. $2 \cdot 3 \cdot 10 = 60$
 $60 \cdot \frac{1}{\frac{72}{360}} = 12$
 $12 + 10 + 10 = 32$

Cevap: D

6. $2 \cdot 3 \cdot 9 = 54$
 $\begin{array}{r} 54 \\ 18 \end{array} \begin{array}{c} \diagup \diagdown \\ \diagdown \diagup \end{array} \begin{array}{r} 360 \\ x \end{array}$
 $x = 120$

Cevap: B

7. $2 \cdot 3 \cdot r = 6r$
 $6r \div 2 = 3r$
 $3r + 2r = 5r$
 $5r = 25$ ise $r = 5$
 $15 \cdot 2 = 30$

Cevap: B

8. $2 \cdot 3 \cdot 4 = 24$
 $24 \div 2 = 12$
 $2 \cdot 3 \cdot 8 = 48$
 $48 \div 2 = 24$
 $12 + 24 + 4 + 4 = 44$

Cevap: A

9. $48 \div 4 = 12$
 $12 \div 2 = 6$
 $2 \cdot 3 \cdot 6 = 36$

Cevap: B

TEST 3

1. πr^2
 $3,14 \cdot 5^2 = 78,5$

Cevap: C

2. $3 \cdot 8^2 = 192$
 $192 \cdot \frac{3}{4} = 144$

Cevap: D

3. $3 \cdot 12^2 = 432$
 $432 \cdot \frac{60}{360} = 72$

Cevap: B

4. $3 \cdot 15^2 = 675$

Cevap: B

5. $3 \cdot 12^2 = 432$
 $\frac{432}{2} = 216$

Cevap: A

6. $3 \cdot 7^2 = 147$
 $3 \cdot 14^2 = 588$
 $147 \cdot 2 = 294$
 $\begin{array}{r} 588 \\ - 294 \\ \hline 294 \end{array}$

Cevap: B

7. $48 \div 4 = 12$
 $\frac{3 \cdot 12^2}{4} = 108 = x$
 $12 \cdot 12 = 144$
 $144 - 108 = 35 = y$
 $108 - 36 = 72$

Cevap: B

8. $\frac{S}{48} \quad \frac{Y}{60} \quad \frac{M}{84} \quad \frac{K}{51}$
 $48 + 51 = 99$
 $60 + 51 = 111$
 $48 + 84 = 132$
 $84 + 51 = 135$

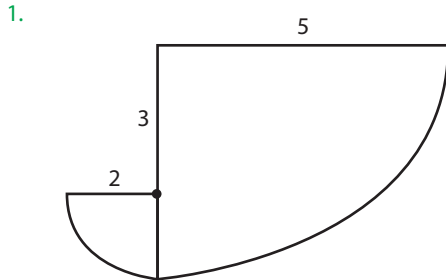
Cevap: D

9. $4^2 \cdot 3 = 48$
 $2^2 \cdot 3 = 12$
 $48 - 12 = 36$
 $8^2 \cdot 3 = 192$
 $6^2 \cdot 3 = 108$
 $192 - 108 = 84$
 $\frac{36}{6} + \frac{84}{6} = 6 + 14 = 20$

Cevap: C

BECERİ TEMELLİ SORULAR

TEST 1



$$\frac{5^2 \cdot 3}{4} + \frac{2^2 \cdot 3}{4}$$

$$\frac{75}{4} + \frac{12}{4} = \frac{87}{4} = 21,75$$

Cevap: C

2. $2 \cdot \pi \cdot 4 + 2 \cdot \pi \cdot 2 + \frac{2 \cdot \pi \cdot 1}{2}$
 $13\pi = 40,82$
 $\pi = 3,14$
3. $7^2 \cdot 3 = 147$
 $21 \cdot 14 = 294$
 $294 - (147 + \frac{147}{2})$
 $= 73,5$

Cevap: C

4. $20 \cdot 20 = 400$
 $5^2 \cdot 3 = 75$
 $400 - 75 = 325 = x$
 $2 \cdot 3 \cdot 5 = 30$
 $10 \cdot 4 = 40$
 $30 + 40 = 70 = y$
 $325 + 70 = 395$

Cevap: B

5. $40 \div 4 = 10$
 $10 \cdot 100 = 1000$
 $10 \cdot 3 \cdot 5^2 = 750$
 $1000 - 750 = 250$

Cevap: D

6. $12 + 2 + 2 = 16$
 $16 \cdot 16 = 256$
 $256 - 144 = 112$
 $3 \cdot 6^2 = 108$
 $256 - 108 = 148$
 $148 - 112 = 36$

Cevap: B

TEST 2

1. $\frac{B}{225} \quad \frac{O}{144} \quad \frac{K}{81}$
 $225 \cdot 2 = 450$
 $225 + 144 + 81 = 450$
 $144 \cdot 3 = 432$
 $6 \cdot 81 = 486$

Cevap: B

Cevap: D

2. $\frac{3 \cdot 50^2}{4} - \frac{3 \cdot 50^2}{6}$
 $\frac{7500}{4} - \frac{7500}{6}$
 $\frac{22\,500 - 15\,000}{12} = \frac{7500}{12}$
 $= 625$

Cevap: C

3. $5^2 \cdot 3 = 75$
 $\frac{75}{3} \cdot \frac{2}{6} = 150$
 $30 \cdot 10 = 300$
 $300 - 150 = 150$

Cevap: B

4. $2 \cdot 3 \cdot 40 = 240$
 $2 \cdot 3 \cdot 50 = 300$

$$\frac{240 \cdot 45}{300} = 36$$

Cevap: A

PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

VERİ ANALİZİ

TEST 1

1. 12.00 – 13.00 arasında

Cevap: C

2. $1 + 4 + 3 + 5 + 4 = 17$

Cevap: D

3. $9 - 8 = 1$

Cevap: B

4. $170 - 90 = 80$

Cevap: A

5. Nisan

Cevap: C

6. $140 - 130 = 10$

Cevap: B

7. Nisan – Mayıs aralığında değişmemiş en az Şubat – Mart olamaz.

Cevap: B

8. Perşembe – Cuma arasında sıcaklık 8°C artmıştır.

Cevap: C

9. Çarşamba – Cuma = 65
Salı – Perşembe = 60

Cevap: D

TEST 2

1. $\frac{36 + 50 + 24 + 15 + 55}{5} = \frac{180}{5} = 36$

Cevap: D

2. $19 \cdot 3 = 57$
 $57 - (18 + 24)$
 $= 15$

Cevap: B

3. II, III doğru

Cevap: B

4. 16, 18, 18, 24, 32
Ort = $\frac{108}{5} = 21,6$
Mod = 18
Medyan = 18

Cevap: D

5. $75 \cdot 3 = 225$
 $225 + 87 = 312$
 $312 \div 4 = 78$

Cevap: A

6. 8, 8, 12, 15, 16, 24, 24
Tepe değer 8 ve 24
Ortanca = 15
Ortalama = $\frac{107}{7} = 15\frac{2}{7}$

II ve III doğru

Cevap: C

7. $1340 \cdot 5 = 6700$
 $1250 + 1400 + 1300 + 1350 = 5300$
 $6700 - 5300 = 1400$

Cevap: A

8. 2, 3, 3, 5, 5, 5, 1, 1, 1, 1, 4, 4, 4, 4
Mod = 4

Cevap: A

9. 45 öğrenci 7 yaşındadır.

Cevap: D

TEST 3

1. $\frac{15}{360} \cdot \frac{9}{24} = 135$ (kız)

Cevap: D

2. $\frac{140}{220} \cdot \frac{7}{x} = 11$
 $x = \frac{220 \cdot 7}{140} = 11$

Cevap: B

3. $360 \cdot \frac{70}{100} = 252$

Cevap: D

4. $360 \cdot \frac{20}{100} = 72$

Cevap: C

5. $360 \cdot \frac{16}{48} = 120$ (Gül)

$360 \cdot \frac{6}{48} = 45$ (Menekşe)

Cevap: B

6. $4 + 3 + 2 + 3 = 12$
 $360 \cdot \frac{2}{12} = 60$

Cevap: C

7. $\frac{\text{Hemşire}}{3x} = \frac{\text{Doktor}}{x}$

$4x = 360$

$x = 90$

Cevap: C

8. $360 - 168 = 192$
 $\frac{96}{192} \cdot \frac{4}{x} = 8$
 $x = \frac{192 \cdot 4}{96} = 8$

Cevap: B

9. $360 - 230 = 130$
 $150 - 80 = 70$
 $\frac{130}{70} \cdot \frac{26}{x} = 14$
 $x = \frac{70 \cdot 26}{130} = 14$

Cevap: C

TEST 4

1. $360 \div 18 = 20$ katı
 $\frac{K}{60} = \frac{Y}{120} = \frac{S}{40} = \frac{M}{140}$

Cevap: C

2. Artış – azalış çizgi grafiği ile gösterilir.

Cevap: C

3. $360 - (135 + 105) = 120$
 $1200 \cdot \frac{120}{360} = 400$

Cevap: B

4. $360 \cdot \frac{10}{30} = 120$

Cevap: C

5. Üç yıldaki üretim 900 000 tondan fazladır.

Cevap: D

6. Siyah = $360 \cdot \frac{3}{9} = 120$

Kırmızı = $360 \cdot \frac{2}{9} = 80$

$$\text{Mavi} = 360 \cdot \frac{4}{9} = 160$$

Cevap: C

$$7. \text{ Öğretmen} = 36 \cdot \frac{120}{360} = 12$$

$$\text{Doktor} = 360 \cdot \frac{100}{360} = 10$$

Cevap: C

$$8. 41 \cdot 10 = 410$$

$$48 + 72 + 120 + 110 + 48 = 398$$

$$410 - 398 = 12$$

Cevap: A

BECERİ TEMELLİ SORULAR

TEST 1

$$1. \quad \frac{I}{120} \quad \frac{C}{360 \cdot \frac{30}{100}} \quad \frac{L}{132}$$

$$-10 \quad -9 \quad -11$$

Cevap: C

$$2. \text{ Siyah} = \text{Beyaz} = \frac{15}{50} = \frac{30}{100} = \%30$$

$$\text{Mavi} = \text{Kırmızı} = \frac{5}{50} = \%10$$

Cevap: D

$$3. 500 \cdot \frac{3}{108} = 150$$

$$500 \cdot \frac{38}{152} = \text{tam sayı olmaz.}$$

Cevap: B

$$4. \frac{180}{360} = \frac{1}{2}$$

Açı 2'ye bölünmeli

Cevap: C

5. 100 50 ise
160 80 (c)
40 20 (a)
60 30 (b)
 $80 + 20 + 30 = 130$

Cevap: B

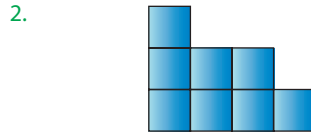
PEKİŞTİREN-GELİŞTİREN SORULARIN ÇÖZÜMLERİ

ÇİŞİMLERİN FARKLI YÖNLERDEN GÖRÜNÜMLERİ

TEST 1

1. 6 küp

Cevap: C



Cevap: A

3. $27 - 6 = 21$

Cevap: B



Cevap: D



Cevap: A

6. C seçeneği olamaz.

Cevap: C

7. 17 birim

Cevap: D

8. 3 yada 4

Cevap: C

TEST 2

1. D küpü

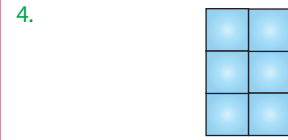
Cevap: C

2. 1 numaralı küpün üzerine

Cevap: A

3. 5 tane

Cevap: C



Cevap: C

5. $A = 6$
 $B = 4$
 $6 + 4 = 10$

Cevap: C

6. $8 + 10 + 8 = 26$

Cevap: B

7. A seçeneği olabilir.

Cevap: A

8. C seçeneği olabilir.

Cevap: C

BECERİ TEMELLİ SORULAR

TEST 1

1. C seçeneği olabilir.

Cevap: C

2. $3 \cdot 4 \cdot 3 = 36$
 $36 - 10 = 26$

Cevap: D

3. D seçeneği olabilir.

Cevap: D

4. Araba – Kamyon – Motorsiklet

Cevap: C

5. A seçeneği olabilir.

Cevap: A