

1

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

(6) (3) (2) (3)

$$\left(\frac{18-3-2}{6}\right) : \left(\frac{1-9}{3}\right)$$

$$\frac{13}{6} : \frac{-8}{3}$$

Cevap A

$$\frac{13}{\cancel{6}_2} \cdot \frac{\cancel{8}}{-8} = \frac{-13}{16}$$

2

$$\left(1 - \frac{1}{2^2}\right) \left(1 - \frac{1}{3^2}\right) \left(1 - \frac{1}{4^2}\right) \dots \left(1 - \frac{1}{15^2}\right)$$

$$\left(1 - \frac{1}{2}\right) \cdot \left(1 + \frac{1}{2}\right) \cdot \left(1 - \frac{1}{3}\right) \cdot \left(1 + \frac{1}{3}\right) \dots \cdot \left(1 - \frac{1}{15}\right) \cdot \left(1 + \frac{1}{15}\right)$$

$$\frac{\cancel{1}}{\cancel{2}} \cdot \frac{\cancel{2}}{\cancel{3}} \dots \frac{\cancel{14}}{\cancel{15}} \cdot \frac{\cancel{2}}{2} \cdot \frac{\cancel{4}}{3} \dots \frac{16}{15}$$

$$= \frac{8}{15}$$

Cevap B

$$\textcircled{3} \quad \frac{2 - \frac{1}{3} + \frac{1}{2}}{3 - \frac{2}{5}}$$

$$\frac{\frac{2}{\frac{1}{(6)}} - \frac{1}{\frac{3}{(2)}} + \frac{1}{\frac{2}{(3)}}}{\frac{13}{5}}$$

$$\frac{12 - 2 + 3}{6} \cdot \frac{5}{13} = \frac{13}{6} \cdot \frac{5}{13}$$

$$= \frac{5}{6} \quad \text{Cevap C}$$

$$\textcircled{4} \quad \left[3 + \left(2 - \frac{1}{2} \right) : \left(1 - \frac{1}{2} \right) \right] \cdot \left(\frac{1}{6} - 2 \right)$$

$$\left[3 + \frac{3}{2} : \left(\frac{1}{2} \right) \right] \cdot \left(-\frac{11}{6} \right)$$

$$\left(3 + \frac{3}{2} \cdot 2 \right) \cdot \left(-\frac{11}{6} \right)$$

$$6 \cdot \frac{-11}{6} = -11$$

$$\text{Cevap A}$$

5

$$m = \frac{12}{4 - \frac{1-n}{3}}$$

(3)

$$M = \frac{12}{\frac{12-1+n}{3}}$$

$$\Rightarrow m = \frac{36}{n+11}$$

ifadesi $n = -11$ için tanımsız olur.

Cevap A

6

$$\left(\frac{13}{7} + \frac{5}{17} - \frac{1}{9}\right) - \left(\frac{17}{9} - \frac{12}{17} - \frac{1}{7}\right)$$

$$\frac{13}{7} + \frac{5}{17} - \frac{1}{9} - \frac{17}{9} + \frac{12}{17} + \frac{1}{7}$$

$$2 + 1 - 2 = 1$$

Cevap B

7

$$\frac{\frac{4}{21} - \frac{4}{35} + \frac{4}{49}}{\frac{2}{27} - \frac{2}{45} + \frac{2}{63}}$$

$$\frac{\frac{4}{7} \left(\frac{1}{3} - \frac{1}{5} + \frac{1}{7} \right)}{\frac{2}{9} \left(\frac{1}{3} - \frac{1}{5} + \frac{1}{7} \right)}$$
$$= \frac{4}{7} \cdot \frac{9}{2} = \frac{18}{7}$$

Cevap D

8

$$\frac{27}{11} = a + \frac{1}{b + \frac{1}{c}}$$

$$\frac{27}{11} = 2 + \frac{5}{11} = 2 + \frac{1}{\frac{11}{5}}$$

$$\boxed{\text{Cevap B}} = 2 + \frac{1}{2 + \frac{1}{5}}$$

$$a+b+c=9 \text{ dir.}$$

9

$$\frac{3}{11} + \frac{1}{13} + \frac{3}{17} = x$$

$$2 / \frac{4}{11} + \frac{6}{13} + \frac{7}{17} = y$$

$$+ \frac{8}{11} + \frac{12}{13} + \frac{14}{17} = 2y$$

$$1 + 1 + 1 = x + 2y$$

$$\Rightarrow y = \frac{3-x}{2}$$

Cevap A

(10)

$$\underbrace{\frac{1}{3} - \frac{1}{4} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{3}}_{49 \text{ tane kesir}} - \frac{1}{4} = A - \frac{1}{4}$$

50 tane

$$25 \cdot \left(\frac{1}{3} - \frac{1}{4} \right) = A - \frac{1}{4}$$

(4) (3)

Cevap C

$$\frac{25}{12} + \frac{1}{4} = A$$

(1) (3)

$$A = \frac{28}{12} = \frac{7}{3}$$

(11)

$$\frac{1}{16} < \frac{x}{48} < \frac{1}{6}$$

(3) (1) (8)

$$\frac{3}{48} < \frac{x}{48} < \frac{8}{48}$$

$x = 4, 5, 6, 7$ olup
4 tane dir.

Cevap D

12

$$a = \frac{3}{4}, b = \frac{7}{6}, c = \frac{2}{5}$$

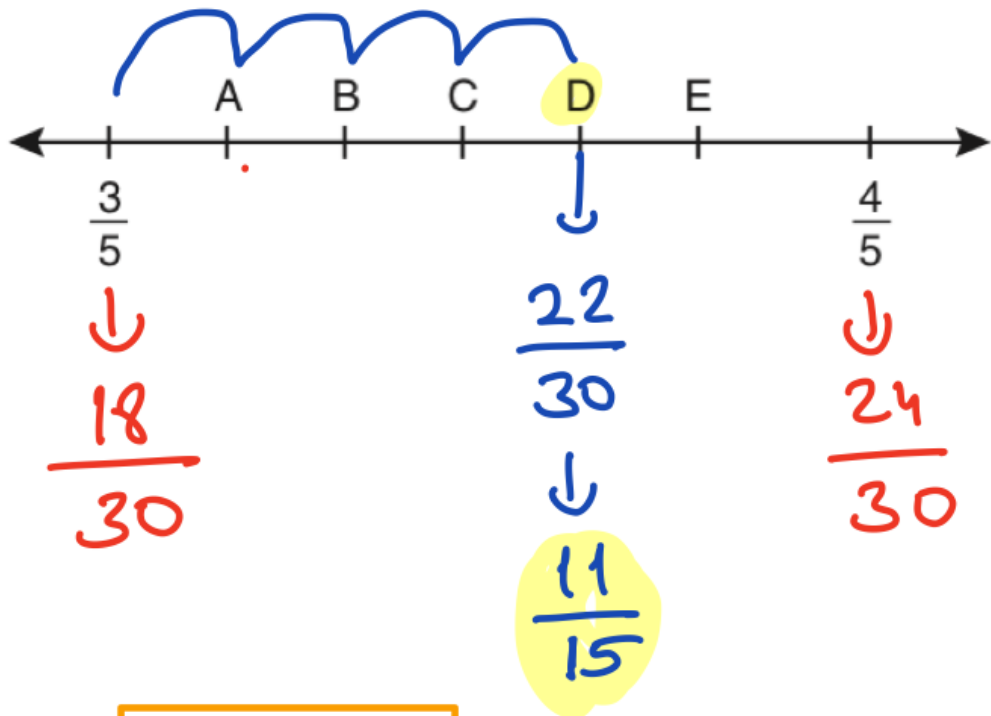
(15) (10) (12)

$$a = \frac{45}{60} \quad b = \frac{70}{60} \quad c = \frac{24}{60}$$

$c < a < b$ olur.

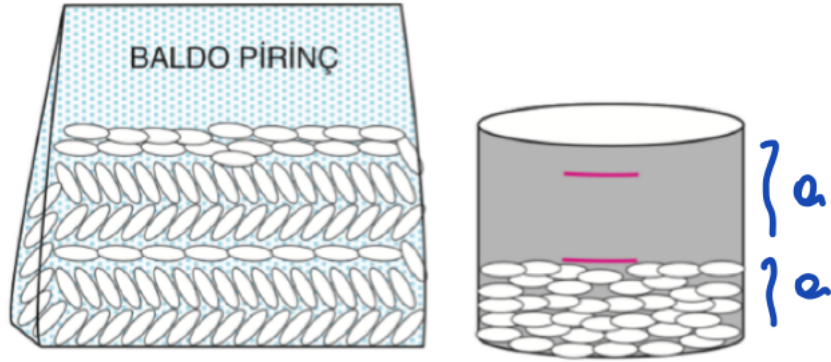
Cevap E

13



Cevap D

14

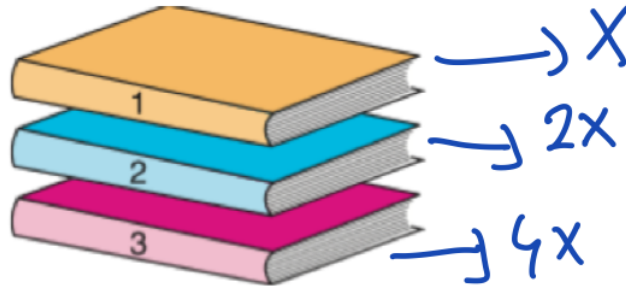


$$4a + 2a = 6a \text{ bir paket piring}$$

Cevap D

1. pilavda a kadar piring
kullandığına göre, bir
paketin $\frac{1}{6}$ sini kullanmıştır.

15



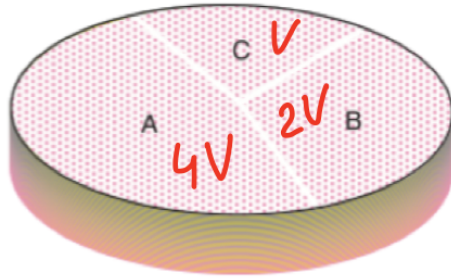
	1.	2.	3.
Okunmuş	x	$2x$	$3x$

3 nolu kitaptan $3x$ okunmuş.

$\frac{3}{4}$ ü okunmuştur.

Cevap D

16



Cevap D

(A)
Ayhan - Aslı

2V - 2V

 $\frac{5V}{2}$

(B)
Berk - Bilal

V - V

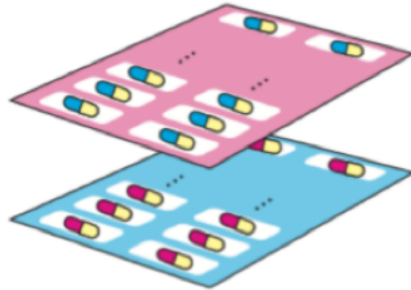
 $\frac{3V}{2}$

(C)
Cem - Canan

 $\frac{V}{2} + \frac{V}{2}$

$$\frac{5V}{2} : \frac{3V}{2} = \frac{5}{3} \text{ olur}$$

17

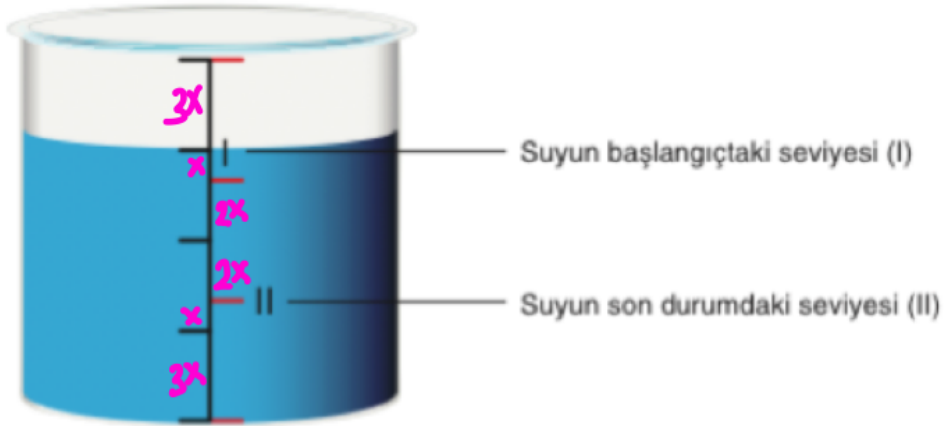


günde 2 hap

günde 3 hap

X günde A den 2x içilir
 X günde B den 3x içilip biterse
 A ve B de 3x hap vardır.
 A dahi hapların 2x i içildiğinden
 $\frac{2}{3}$ ü biter. Cevap C

18



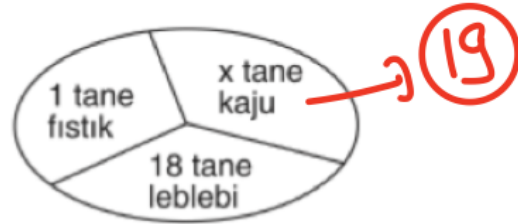
İlk durumda kaptaki su $9x$ kadar su bulunmaktadır. Son durumda su II nolu seviye çizgisine geldiğinden $5x$ kadar su dökmüştür. Yani kaptaki suyun $\frac{5}{9}$ u dökmüştür.

Cevap D

19



ŞEKİL 1



ŞEKİL 2

$$\begin{aligned} \text{Kaju} &\rightarrow x \\ \text{leblebi} + \text{fıstık} &\rightarrow 2x \\ 38 &= 2x \end{aligned}$$

$$x = 19$$

$$\downarrow \frac{19}{38} = \frac{1}{2} \text{ olur.}$$

Cevap D

①

$$\frac{0,2 + 0,3}{0,3 - 0,03} : \frac{25}{9}$$

$$\begin{array}{r} 0,30 \\ - 0,03 \\ \hline 0,27 \end{array}$$

$$\frac{0,5}{0,27} \cdot \frac{9}{25}$$

$$\frac{\cancel{5}^2}{\cancel{27}_3} \cdot \frac{\cancel{9}}{\cancel{25}} = \left(\frac{2}{3} \right)$$

Cevap D

②

$$\frac{0,012}{0,02} + \frac{0,18}{0,09} + \frac{0,004}{0,01}$$

$$\frac{12}{20} + \frac{18}{9} + \frac{4}{10}$$

$$\frac{3}{5} + 2 + \frac{2}{5} = 3$$

Cevap D

3

$$\left(3 + \frac{1}{4}\right) : \frac{0,09}{0,9} + \frac{1}{2}$$

$$\frac{13}{4} : \frac{\cancel{8}}{\cancel{80}} + \frac{1}{2}$$

$$\frac{13}{4} \cdot 10 + \frac{1}{2}$$

$$\frac{65}{2} + \frac{1}{2} = 33$$

Cevap B

4

$$\frac{0,1}{0,02} + \frac{0,02}{0,001}$$

$$\frac{10}{2} + \frac{20}{1}$$

$$5 + 20 = 25$$

Cevap A

5

$$\left(\frac{758 + 7,58}{75,8} \right) : \left(\frac{587 + 5,87}{58,7} \right)$$

$$\left(\frac{75800 + 758}{7580} \right) : \left(\frac{58700 + 587}{5870} \right)$$

$$\left(10 + \frac{1}{10} \right) : \left(10 + \frac{1}{10} \right)$$

$$= 1 \quad \text{Cevap B}$$

6

$$1 + \frac{1}{0,6 + \frac{1}{0,5} \cdot \frac{1}{5}}$$

$$1 + \frac{1}{\frac{3}{5} + 2 \cdot \frac{1}{5}}$$

Cevap E

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

$$= 2$$

7

$$X + \frac{8}{125} = 1$$

$$X + \frac{64}{1000} = 1$$

$$X + 0,064 = 1$$

Cevap C

$$\begin{array}{r} 1,000 \\ - 0,064 \\ \hline X = 0,936 \end{array}$$

8

$$b < a$$

$$5,4 = a + \frac{b}{5}$$

$$\frac{27}{5} = \frac{5a+b}{5}$$

Cevap D

$$\Rightarrow 5a + b = 27$$

$$\begin{array}{cc} 5 & 2 \end{array}$$

$$a - b = 3 \text{ olur.}$$

9

$$\frac{0,\overline{9} - 0,\overline{4}}{0,\overline{3} + 0,\overline{2}} = \frac{\frac{9}{9} - \frac{4}{9}}{\frac{3}{9} + \frac{2}{9}}$$

$$\frac{\frac{5}{9}}{\frac{5}{9}}$$

= 1

Cevap E

10

$$\frac{0,\overline{67} + 0,\overline{32}}{0,02}$$

$$\frac{\frac{67}{99} + \frac{32}{99}}{\frac{2}{100}} = \frac{1}{\frac{1}{50}}$$

Cevap D

= 50

11

$$\frac{0,\overline{1}}{0,1} + \frac{0,\overline{2}}{0,2} + \frac{0,\overline{3}}{0,3} + \dots + \frac{0,\overline{8}}{0,8} + \frac{0,\overline{9}}{0,9}$$

$$\frac{\frac{1}{9}}{\frac{1}{10}} + \frac{\frac{2}{9}}{\frac{2}{10}} + \dots + \frac{\frac{8}{9}}{\frac{8}{10}} + \frac{\frac{9}{9}}{\frac{9}{10}}$$

$$= \frac{10}{9} + \frac{10}{9} + \dots + \frac{10}{9}$$

9 tane

$$= \cancel{9} \cdot \frac{10}{\cancel{9}} = 10$$

Cevap D

12

$$\frac{(4a)-4}{\cancel{90}_3} = \frac{3a+4}{\cancel{30}}$$

$$36+a = 9a+12$$

$$8a = 24$$

$$\underline{\underline{a=3}}$$

Cevap D

13

$$a, \bar{b} = 5a - 3b$$

$$\frac{ab-a}{9} = 5a-3b$$

$$9a+b = 45a-27b$$

$$28b = 36a$$

$$7b = 9a$$

$$\begin{array}{cc} \downarrow & \downarrow \\ 9 & 7 \end{array}$$

$$b-a = 2 \text{ dir.}$$

Cevap D

14

$$\frac{1}{3} + \frac{5}{33} = 0,\overline{ab} = \frac{(ab)}{99}$$

$$\frac{48}{99} = \frac{(ab)}{99}$$

$\Rightarrow a=4$ ve $b=8$ dir.

$$g. 8,\overline{4} = \cancel{8} \cdot \frac{84-8}{\cancel{9}} = 76$$

Cevap A

15

$$x = 0,53\overline{1} = 0,531111\dots$$

$$y = 0,5\overline{31} = 0,531313\dots$$

$$z = 0,5\overline{31} = 0,531531\dots$$

$$x < y < z$$

Cevap A

16

$$x = 0,04 + 0,004 + 0,0004 + \dots$$

$$y = 0,8 + 0,08 + 0,008 + \dots$$

$$\begin{array}{r} 0,04 \\ 0,004 \\ 0,0004 \\ \vdots \\ + \\ \hline x = 0,0444\ldots \\ x = 0,0\overline{4} \end{array} \quad \begin{array}{r} 0,8 \\ 0,08 \\ 0,008 \\ \vdots \\ + \\ \hline y = 0,888\ldots \\ y = 0,\overline{8} \end{array}$$

$$x = \frac{4}{90} \quad y = \frac{8}{9}$$

$$x + y = \frac{84}{90} = \frac{14}{15}$$

Cevap B

17

Tetkik adı	Sonuç	Referans aralığı
WBC	10,1	3,98 - 10,04
RBC	3,9	3,93 - 5,22
HCT	34,02	34,1 - 44,9
PLT	180,01	180 - 370
MCV	80	79,4 - 94,8
MCH	25,55	25,6 - 32,2

Cevap B

18



$$x = 1,02$$

$$y = 1,98$$

$$\frac{2-1}{100} = 0,01$$

$$y - x = \frac{1,98 - 1,02}{0,96}$$

Cevap E

19

Meyve	Tane fiyatı
Elma	0,5 TL
Armut	$0,\overline{6}$ TL
Portakal	$0,\overline{3}$ TL
Muz	1,5 TL

$$\rightarrow \frac{1}{2} = \frac{3}{6}$$

$$\rightarrow \frac{2}{3} = \frac{4}{6}$$

$$\rightarrow \frac{1}{3} = \frac{2}{6}$$

$$\rightarrow \frac{3}{2} \rightarrow \frac{9}{6}$$

Önce hepsinden birer tane alalım.

$$1 \cdot \frac{9}{6} + 1 \cdot \frac{4}{6} + 1 \cdot \frac{3}{6} + 1 \cdot \frac{2}{6}$$

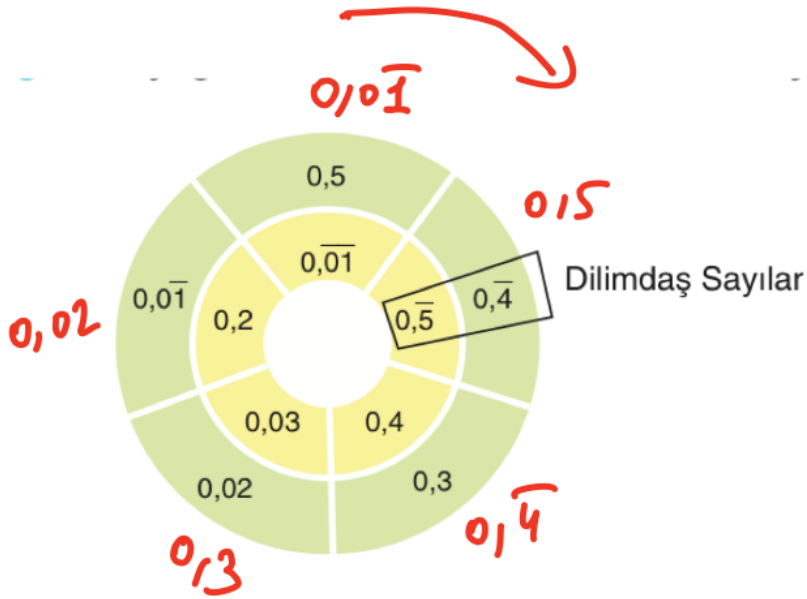
$$\frac{18}{6} = 3 \text{ lira. (4 meyve)}$$

en ucuz portakal olduğundan
6 tane daha portakal
almalıyız $6 \cdot \frac{2}{6} = 2 \text{ lira}$

Cevap C

$$3 + 2 = 5 \text{ lira.}$$

20



$$\frac{0,5}{0,5} \cdot \frac{0,4}{0,4} \cdot \frac{0,3}{0,3} \cdot \frac{0,02}{0,2} \cdot \frac{0,01}{0,01}$$

$$\frac{\frac{5}{10}}{\frac{5}{9}} \cdot \frac{\frac{4}{9}}{\frac{4}{10}} \cdot \frac{\frac{30}{3}}{\frac{2}{20}} \cdot \frac{\frac{1}{90}}{\frac{1}{99}}$$

$$\frac{\cancel{5}}{\cancel{10}} \cdot \frac{\cancel{9}}{\cancel{5}} \cdot \frac{\cancel{4}}{\cancel{9}} \cdot \frac{\cancel{10}}{\cancel{4}} \cdot \frac{\cancel{10}}{\cancel{10}} \cdot \frac{\cancel{1}}{\cancel{10}} \cdot \frac{\cancel{1}}{\cancel{90}} \cdot 99$$

$$= \frac{11}{10} = 1,1$$

Cevap E

21

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

1	0,5	$0,\overline{3}$
2	1	$0,\overline{6}$
3	1,5	1

Cevap D

$$3 + 0,\overline{6} = 3,\overline{6} \\ = a,\overline{b}$$

$a=3$ ve $b=6$
ise $a+b=9$ dir.

①

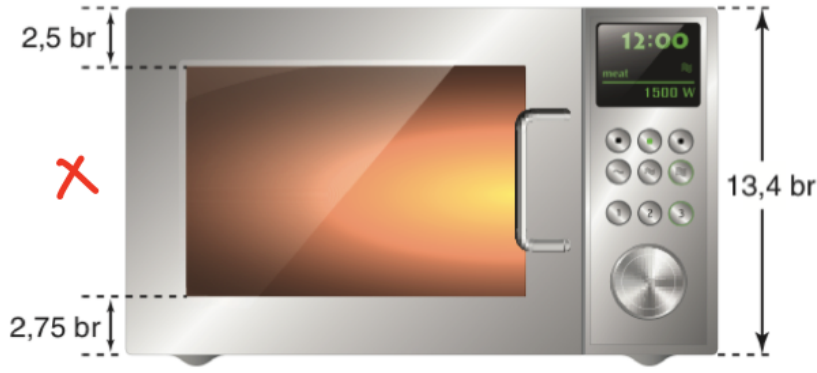
$$M = \left(\frac{1}{2} + \frac{2}{3} \right) \cdot \frac{4}{7} = \frac{\cancel{2}}{6} \cdot \frac{4}{\cancel{7}} = \frac{2}{3}$$

$$N = \left(\frac{2}{3} - \frac{2}{9} \right) \cdot \frac{2}{3} = \frac{4}{9} \cdot \frac{2}{3} = \frac{8}{27}$$

$$M = \frac{18}{27} > \frac{8}{27} = N$$

Cevap D

2



$$x + 2,5 + 2,75 = 13,4$$

$$x + 5,25 = 13,4$$

$$\begin{array}{r} 2,75 \\ + 2,50 \\ \hline 5,25 \end{array}$$

$$\begin{array}{r} 13,40 \\ - 5,25 \\ \hline 8,15 \end{array}$$

$$x = 8,15$$

Cevap D

3

$$\left(\frac{a}{2} + \frac{b}{3} \right) : \left(\frac{b}{a} + \frac{3}{2} \right)$$

(3) (2) (2) (a)

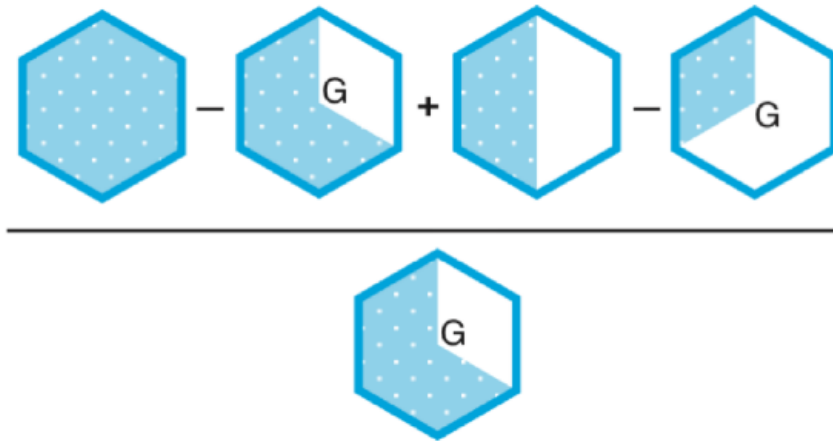
$$\frac{3a+2b}{6} : \frac{2b+3a}{2a}$$

$$\frac{\cancel{3a+2b}}{6} \cdot \frac{2a}{\cancel{3a+2b}}$$

Cevap E

$$\frac{a}{3}$$

4



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

$$\frac{2}{3}$$

$$= \frac{\frac{12}{12} - \frac{8}{12} + \frac{6}{12} - \frac{4}{12}}{\frac{8}{12}}$$

Cevap C

$$\frac{6}{8} = \frac{3}{4}$$

5

$$\lambda = 0, \overline{13} = \frac{13}{99}$$

$$y = \left(\frac{1}{2} + \frac{13}{99} \right) \cdot \frac{11}{5}$$

$$y = \frac{11}{10} + \frac{13}{45} = \frac{125}{90}$$

Cevap C

$$y = \frac{25}{18}$$

6

	↓	↓	↓	↓	↓
	3	2	3	3	1
→ 4	1	1	1	1	
→ 3	1		1		1
→ 2		1		1	
→ 3	1		1	1	

Cevap D

$$\frac{12}{20} = \left(\frac{3}{5} \right)$$

7

$$\frac{A}{B} + \frac{4}{3} + \frac{9}{2} = \frac{A}{B} \cdot \frac{4}{2} \cdot \frac{3}{2}$$

$$\frac{A}{B} + \frac{35}{6} = \frac{6 \cdot A}{B}$$

$$\frac{35}{6} = \frac{5A}{B}$$

Cevap C

$$\frac{A}{B} = \frac{7}{6} \text{ olur.}$$

8

$$\frac{a}{b} + \frac{b}{a} - ab$$

$$\frac{a^2 + b^2}{ab} - ab$$

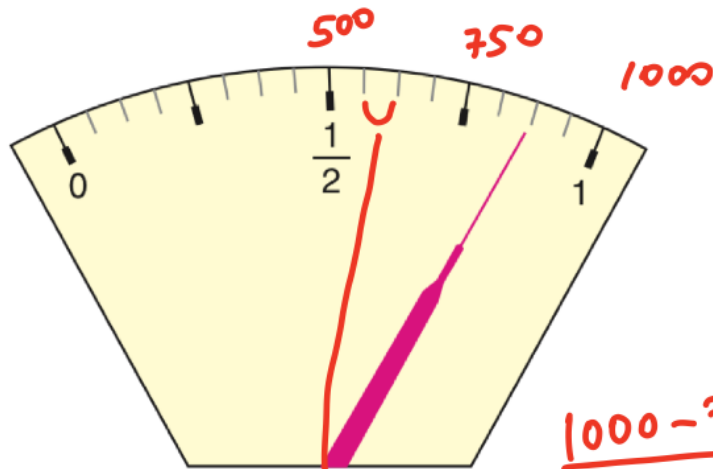
Cevap A

$$\frac{a^2 + b^2}{a - b} - \frac{(a - b)}{1}$$

$$\frac{a^2 + b^2 - a^2 + b^2 + 2ab}{a - b}$$

$$\frac{2(a + b)}{a - b} = 2$$

9



$$\frac{1000 - 750}{4}$$

$$= \frac{125}{2} \text{ (her oralık)}$$

Cevap D

$$750 + 2 \cdot \frac{125}{2} = 875$$

10

A	3	6	4	B	C	4	3
---	---	---	---	---	---	---	---

↓
4

↓
3

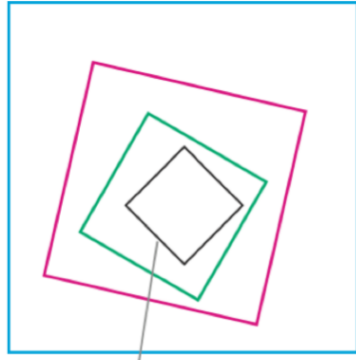
↓
6

$$\frac{4}{\frac{3}{(2)}} + \frac{3}{\frac{6}{(1)}} = \frac{11}{6}$$

Cevap B

11

İç içe dört kare



Kenar 8 cm

Cevap C

$$\cancel{8} \cdot \cancel{\frac{3}{2}} \cdot \cancel{\frac{3}{2}} \cdot \cancel{\frac{3}{2}} = 27$$

12

$$\frac{x+16}{y+24} = \frac{x}{y}$$

$$\text{EBOB}(x,y) = 17$$

$$x+y=?$$

$$\cancel{xy} + 16y = \cancel{xy} + 24x$$

$$2y = 3x$$

$$\downarrow$$

$$3K$$

$$\downarrow$$

$$2K$$

$$\downarrow$$

$$\downarrow$$

$$(51) + (34) = 85$$

Cevap C

13

$$\frac{2}{12} \cdot \frac{4}{1} \cdot \frac{5}{2} \cdot \frac{6}{3} \cdot \frac{7}{4} \cdot \frac{8}{5} \cdot \frac{9}{6} \cdot \frac{10}{7} \cdot \frac{11}{8} \cdot \frac{12}{9} \cdot \frac{1}{10} \cdot \frac{2}{11}$$

= 1 Cevap C

14

$$\Delta(38) = \frac{0,0008}{\Delta(12) = 0,02} = \frac{8}{200} = 0,04$$

= Δ(14)

Cevap C

①

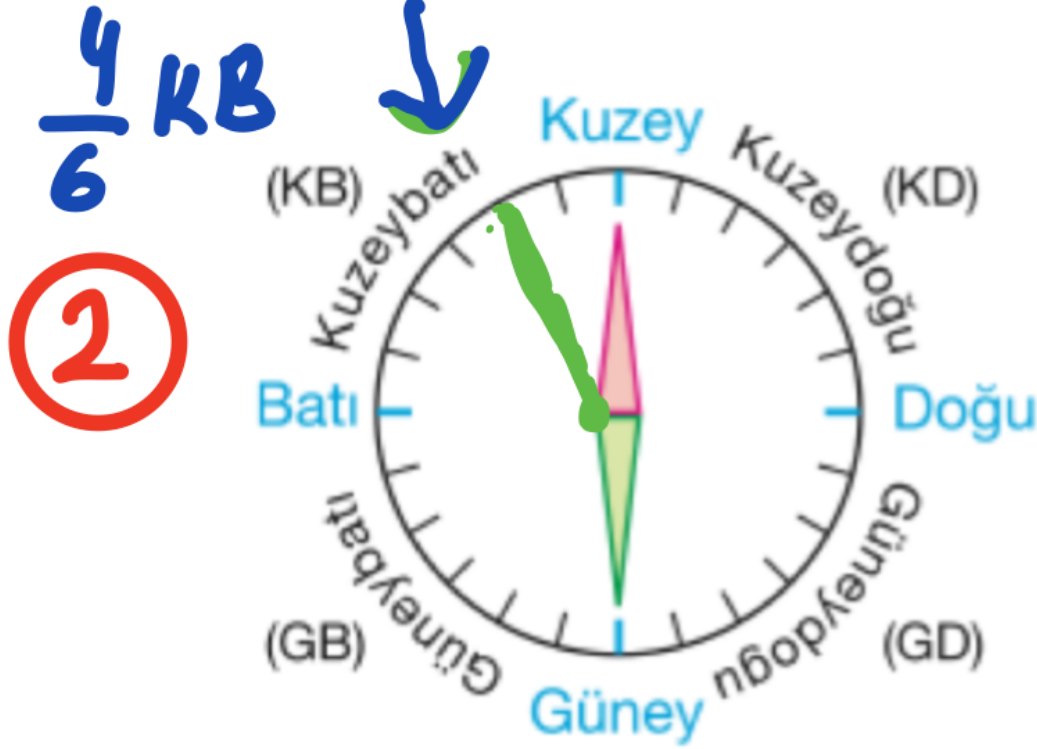
$EBOB(a, 10) = 1$
ise a ile 10 sayıları
aralarında asal'dır.

$$\frac{a}{10} < 2 \text{ ise } a < 20$$

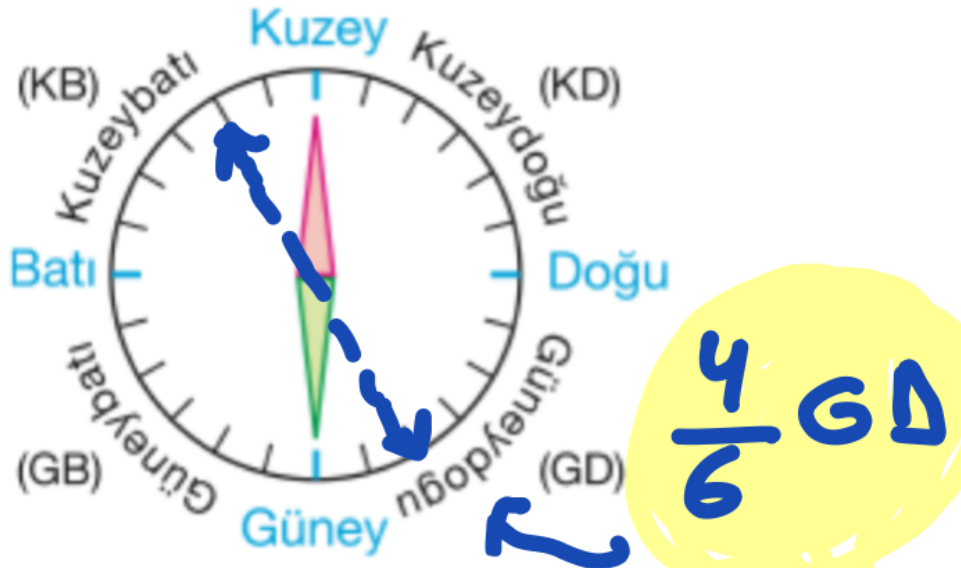
$$a = 1, 3, 7, 9, 11, 13, 17, 19$$

8 tane'dir.

Cevap B



Cevap B



evine aynı yönden
dönerken

3

$$G \quad x^2 + x - 20 = a$$

$$i \quad (x+5) \cdot (x-4) = b$$

$$x^2 + x - 20 = b$$

$$a = b$$

Cevap D

$$\frac{a+b}{\cancel{x} - \cancel{4} + \cancel{x} + \frac{a}{b} 1} = 20$$

$$a+b=20 \Rightarrow a=10$$

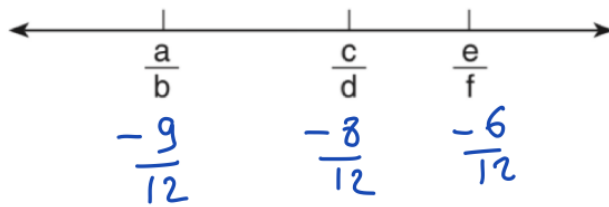
$$x^2 + x - 20 = 10$$

$$x^2 + x - 30 = 0$$

$$(x+6) \cdot (x-5) = 0$$

$$x = -6$$

4



$$-\frac{1}{2}, -\frac{2}{3}, -\frac{3}{4}$$

$$-\frac{6}{12} > -\frac{8}{12} > -\frac{9}{12}$$

Cevap C

$$\frac{e}{f} \cdot \frac{c}{d} = \frac{e}{b}$$

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

$$\frac{1}{3} + \frac{3}{4} = \frac{13}{12}$$

5



Cevap C

$$\frac{46}{48} = \frac{23}{24} \left(\begin{array}{l} \frac{23}{48} \leftarrow 2A + B + C \rightarrow \text{Alev} \\ \frac{1}{24} \leftarrow D \rightarrow \text{Taşkın} \\ \frac{23}{48} \leftarrow 2A + 2B + C \rightarrow \text{Postada Kalan} \end{array} \right)$$

6

$$\frac{87 - 2x}{58 - 3y} = \frac{3}{2}$$

$$174 - 4x = 174 - 9y$$

$$4x = 9y$$

$$9 \quad 4 \rightarrow 1. \text{ kez}$$

$$18 \quad 8 \rightarrow 2. \text{ kez}$$

Cevap D

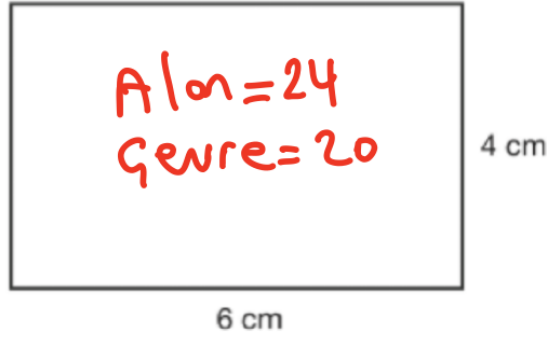
$$18 + 8 = 26 \text{ dir.}$$

25 Kare tüm alan
100 birim kare olsun.

40 br² için 2 Kalen biterse
60 br² için 3 Kalen biter.

Cevap C

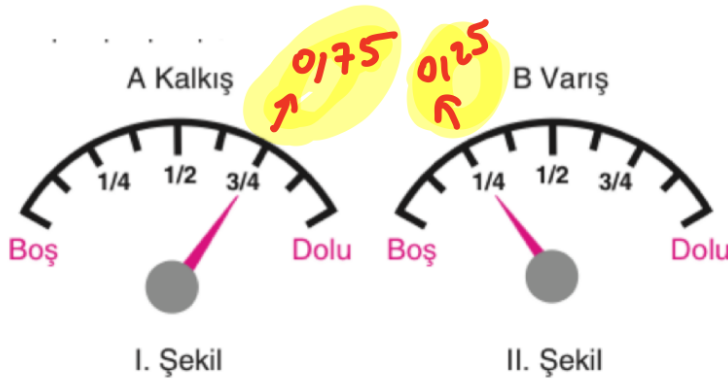
8



$$\frac{4}{6} + \frac{20}{24} = \frac{2}{3} + \frac{5}{6} = \frac{3}{2}$$

Cevap B

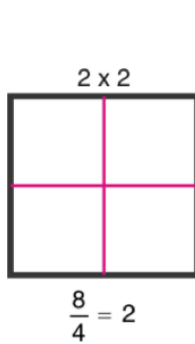
9



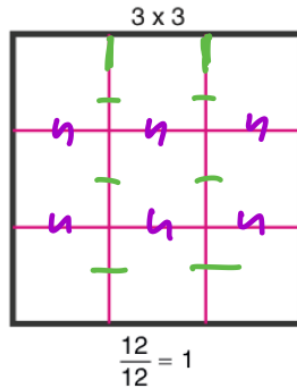
Bu durumda yakıt deposunun tamamı kadar (1) yakıt alınmalıdır.

Cevap A

10



I. Şekil



II. Şekil

$$\rightarrow \frac{3 \cdot 2 + 2 \cdot 3}{3 \cdot 4} = \frac{12}{12}$$

11x11'lik karede
aynı mantıkla

Cevap D

$$\frac{10 \cdot 11 + 11 \cdot 10}{11 \cdot 4} = \frac{220}{44} = 5$$

11

$$x = y \cdot z$$

$$\frac{x}{yz} - \frac{xz}{y}$$

$$\frac{\cancel{x}}{\cancel{x}} - \frac{\cancel{y} \cdot z^2}{\cancel{y}}$$

$$1 - z^2$$

$$z = 7 \text{ için}$$

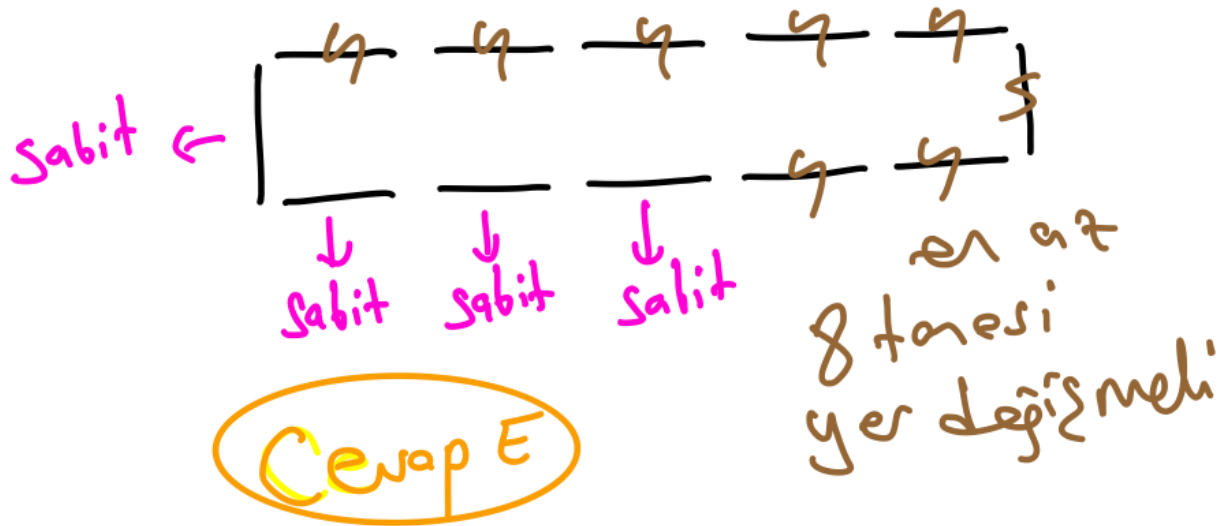
$$1 - 49 = -48 \text{ olabilir.}$$

Cevap B

12



Yeni Alan $9 \cdot \frac{5}{9} = 5$ birimkare
olacak.



①



Cevap C

$$3 \cdot \frac{3}{6} + 6 \cdot \frac{2}{6} + 3 \cdot \frac{1}{6} \\ = \frac{24}{6} = 4 \text{ olur.}$$

②

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

(3) (2)

$$-\frac{a}{6} = \frac{1}{2} \Rightarrow \underline{\underline{a = -3}}$$

$$\frac{1}{2} - \frac{2}{3} \cdot (-3) = \frac{1}{2} + 2 = \frac{5}{2}$$

Cevap E

③

$$\frac{\text{Banu}}{(18)}$$

Sena	Melis	Can
4	4	4

Kutuda ucların $\frac{1}{3}$ ü kaldığından
12 tane uç verilmiştir.

Cevap E

Banu Senaya 4 uç
vermiş kutuda
kalan uç 6 taredir.

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

④

$$n=5 \text{ için; } \frac{1}{5} + \frac{2}{5} + \frac{3}{5} + \frac{4}{5} + \frac{5}{5} = 3$$

Cevap B

$$\frac{0,6}{a \cdot 10^{-2}} = 3$$

$$\frac{60}{a} = 3$$

$$\Rightarrow a = 20$$

5

	→	Birlik Nota = Dört Vuruş	→ 4
	→	İkilik Nota = İki Vuruş	→ 2
	→	Dörtlük Nota = Bir Vuruş	→ 1
	→	Sekizlik Nota = 1/2 Vuruş	→ 1/2
	→	Onaltılık Nota = 1/4 Vuruş	→ 1/4
	→	Otuzikilik Nota = 1/8 Vuruş	→ 1/8
	→	Altmışdörtlük Nota = 1/16 Vuruş	→ 1/16

7 nota

$$7 + \frac{15}{16}$$

vuruş

Her nota en az bir kez kullanılacağından,

$$9 - \left(7 + \frac{15}{16}\right) = \frac{17}{16}$$

en fazla nota kullanmak için

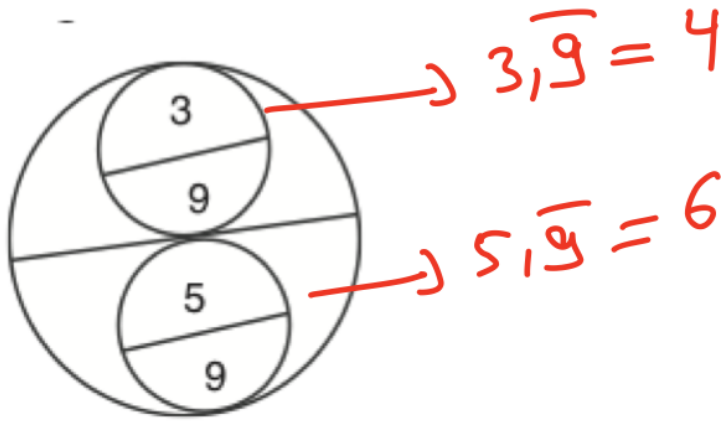
$$17 \cdot \frac{1}{16} = \frac{17}{16} \text{ (17 nota)}$$

vuruş
gereh.

$$7 + 17 = 24 \text{ nota}$$

yazılır. **Cevap D**

6



$$= 4,6 = \frac{46-4}{9}$$
$$= \frac{42}{9} = \frac{14}{3}$$

Cevap D

7

$$\frac{a6}{b5}$$

ifadesinde $a=5$ ya da
 $b=6$ dir.

$b=6$ olsun.

$$\frac{a6}{65} = \frac{a}{5}$$

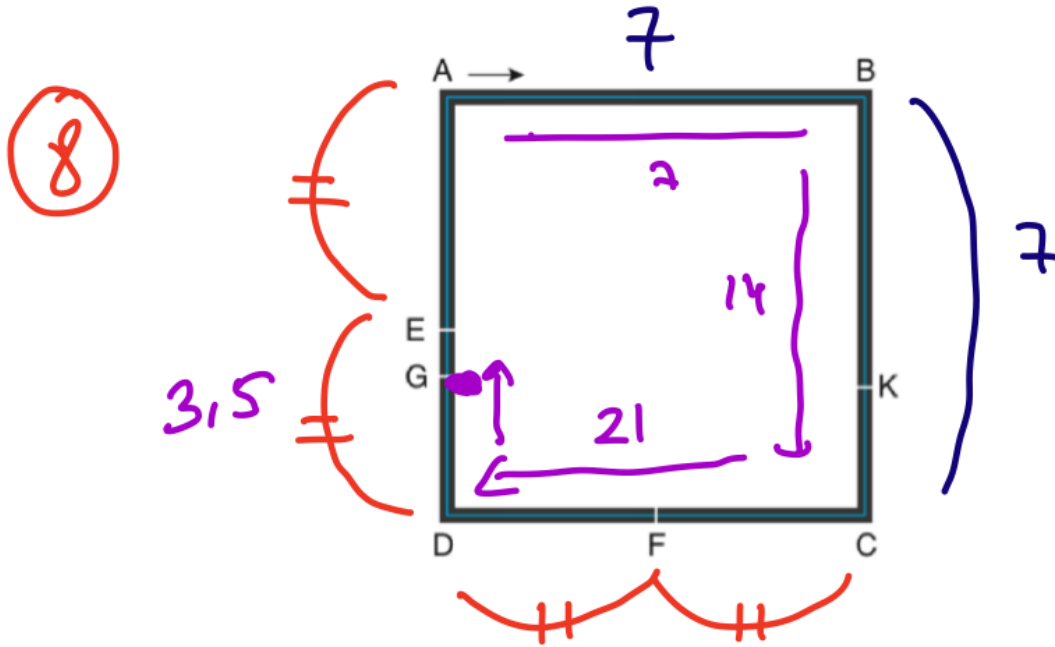
$13 \cdot a$
 $5 \cdot 13$

Cevap D

$$13a = 10a + 6$$

$$a = 2$$

$$a + b = 8 \text{ dir.}$$



Karenin bir kenarı 7 birim olsun. Küzgar 2 tam tur atacaksa toplam 56 birim yol alır. Yolun $\frac{3}{7}$ si 24 birim olur. E de 24,5 birim olacağından G noktasına denk gelmiş olabilir.

Cerap B

9



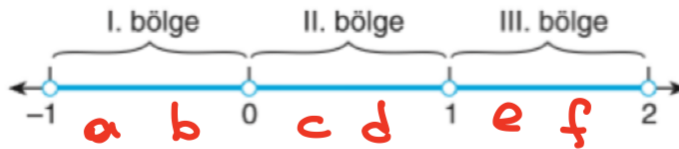
$\text{Çap} = R = 11,01$ olmak üzere
Çevresi $\rightarrow \pi R$ olacaktır.

$$11,01 \cdot 3,14 = 34,7514$$

1+4=5 olur.

Cevap C

10



$$a = -\frac{4}{5} \quad b = -\frac{1}{2} \quad c = \frac{1}{4} \quad d = \frac{1}{2} \quad e = \frac{6}{5} \quad f = \frac{3}{2}$$

$$x = \frac{b}{a} = \frac{5}{8} \quad y = \frac{c}{d} = \frac{1}{2} \quad z = \frac{5}{4}$$

II

II

III

Cevap B

11

$$8,9 - 6,0 = 2,9$$

$$2,9 \cdot 10 = 29$$

$$\frac{0,9}{0,3} = 3 \cdot 2 = 6$$

$$29 + 6 = 35 \text{ bulunur.}$$

Cevap C

12. $1,8\overline{9}$ sayısının değerini hesaplamak isteyen Derin aşağıdaki işlemleri yapıyor.

I. $1,8999 \dots = A$

II. $18,999 \dots = 10A$

III. $189,99 \dots = 100A$

IV. $100A - 10A = 171$

V. $A = \frac{171}{90} = 1,9$

Yapılan işlemler
doğrudur.

Cevap E

1

$$\frac{2}{3} \quad \frac{2}{5} \quad \frac{1}{2} \quad \frac{1}{1}$$

(10) (6) (15) (30)

$$\frac{20}{30}$$

$$\frac{12}{30}$$

$$\frac{15}{30}$$

$$\frac{30}{30}$$

Cevap E

$$\frac{18}{30} = \frac{3}{5} \text{ olur.}$$

2

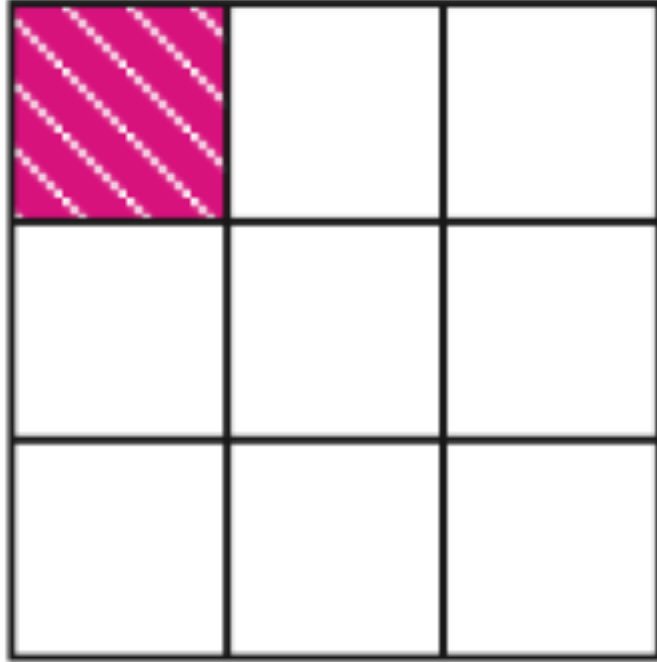
atılmalıdır.

$$\frac{1}{2} + \frac{1}{4} + \frac{1}{6} + \cancel{\frac{1}{8}} + \cancel{\frac{1}{10}} + \frac{1}{12}$$

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

Cevap C

3



$$\left(\frac{1}{9} \cdot 6\right)^2 = \left(\frac{2}{3}\right)^2 = \frac{4}{9}$$

deleyisyle 3 kare
deha boyanmalidir.

Cevap D

4

- Boy = (Kol kemiğinin uzunluğu $\times$ 2,89) + 70,6
- Boy = (Uyluk kemiğinin uzunluğu $\times$ 1,9) + 81,3

Kol kemik uzunluğu 30 cm ise

$$\text{Boy} = (30 \cdot 2,89) + 70,6 = 157,3$$

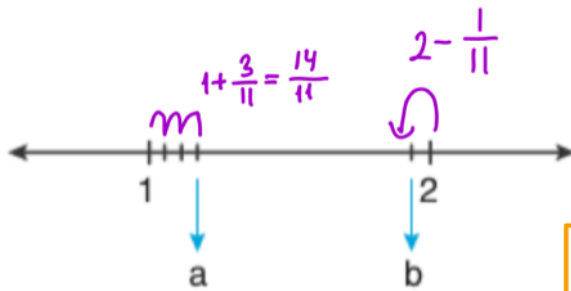
$$157,3 = (x \cdot 1,9) + 81,3$$

$$\Rightarrow 76 = 1,9 \cdot x$$

$$x = \frac{76}{1,9} = 40 \text{ cm olur.}$$

Cevap C

5



Cevap C

$$b = 2,90 = \frac{190-1}{99} = \frac{189}{99} = \frac{21}{11}$$

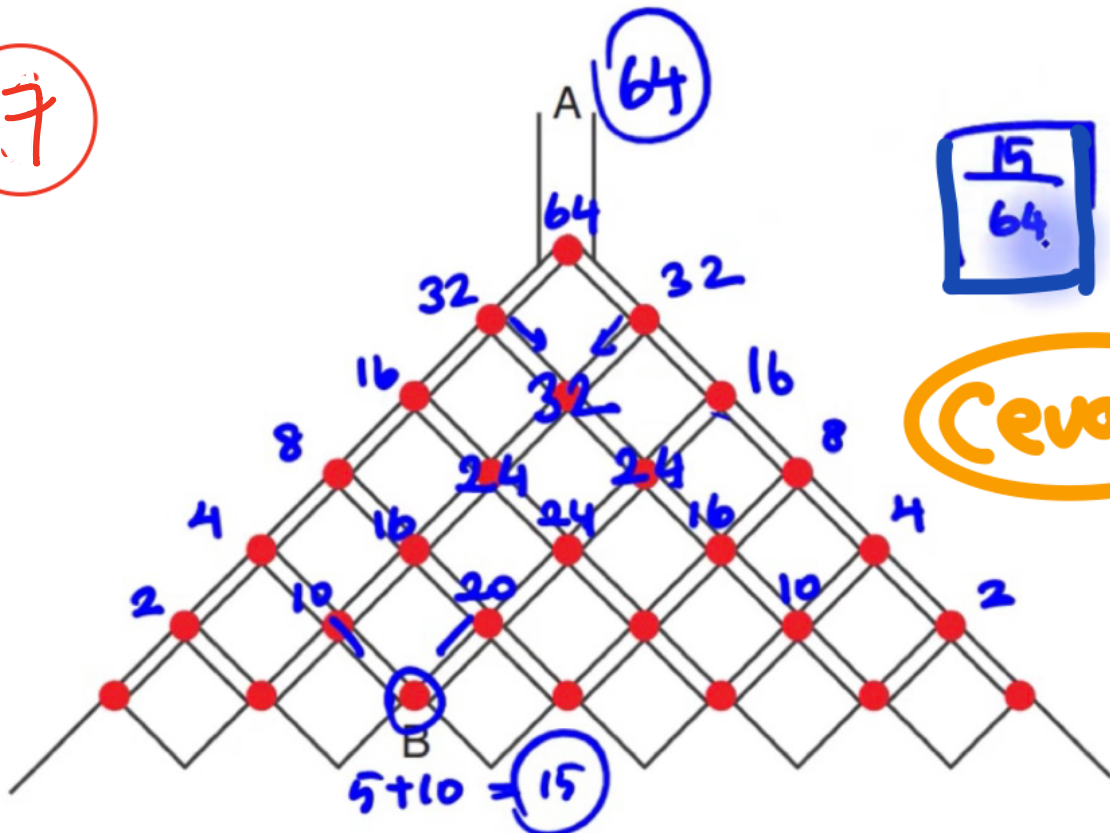
$$a = \frac{14}{11} = \frac{126}{99} = 1,27 \text{ olur.}$$

6

$$\frac{4}{8} \cdot \frac{8}{12} \cdot \frac{12}{16} \cdots \frac{120}{124} = \frac{1}{31} \text{ olur,}$$

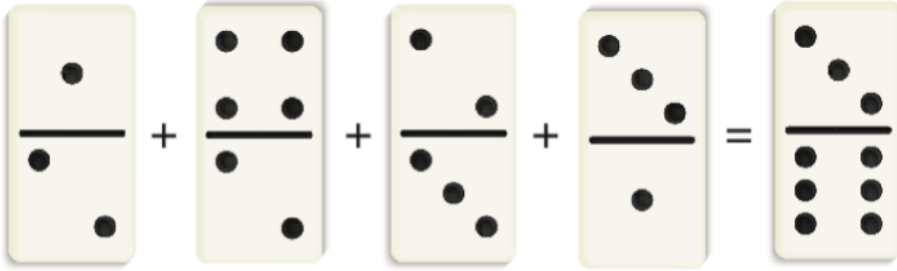
Cevap E

7



Cevap C

8



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

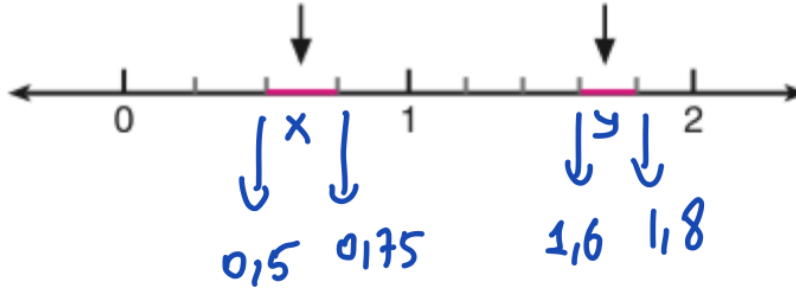
$$\frac{1}{2} + \frac{2}{4} + \frac{2}{3} + \frac{1}{3} = \frac{6}{3} \text{ eşitliği}$$

sağlanmış olur.

Döndürülecek olan iki domino taşının farkı $3 - \frac{3}{6} = \frac{5}{2}$ olabilir.

Cevap C

9



Cevap C

$$0,5 < x < 0,75$$

$$1,6 < y < 1,8$$

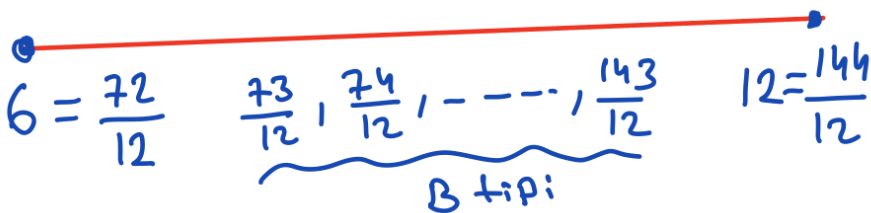
$$2,2 < x+y < 2,55$$

2,3 olabilir.

10

a ve b birer tam sayı d.i. $\frac{a}{b}$ ye rasyonel sayıdır.

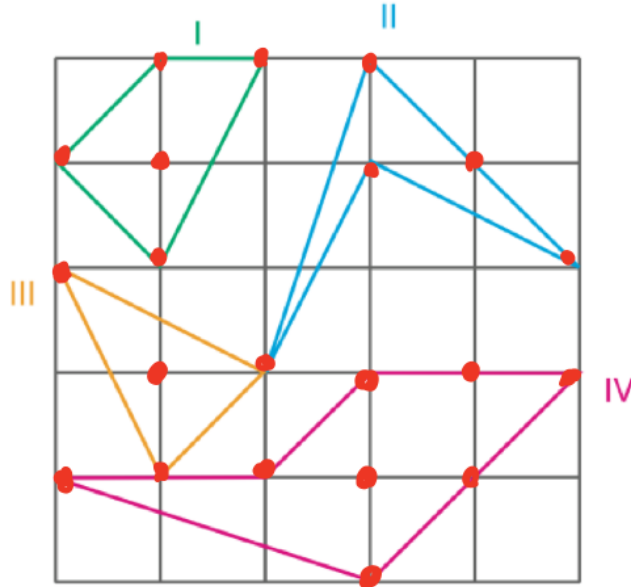
En büyük A tipi iki rasyonel sayı $\frac{12}{1} = 12$ ve $\frac{12}{2} = 6$ dir.



Cevap D

71 tane dir.

11



$$I. 1 + \frac{4}{2} - 1 = 2$$

$$II. 0 + \frac{5}{2} - 1 = \frac{3}{2}$$

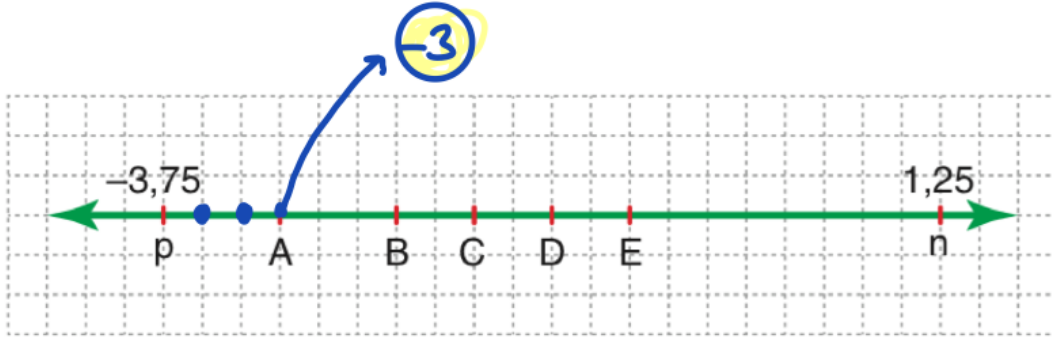
$$III. 1 + \frac{3}{2} - 1 = \frac{3}{2}$$

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

II ve III

Cevap C

12



Yukarıdaki sayı doğrusunda p ve n sayılarının bulundukları yerler gösterilmiştir. p ile n arası 20 eşit parçaya bölünmüştür.

$$n \cdot k = p \quad K = \frac{p}{n} = \frac{-3,75}{1,25} = \underline{\underline{-3}}$$

$$\frac{1,25 - (-3,75)}{20} = \frac{5}{20} = \underline{\underline{0,25}}$$

Cevap A

13

 $x = -1$ olsun.

$$a = 1 - 0,34$$

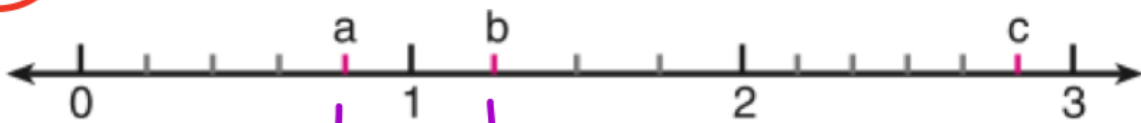
$$b = (-1 - 0,34)^2 = (-1,34)^2 = (1,34)^2$$

$$c = -1 - 0,34 = -1,34$$

 $c < a < b$ olur.

Cevap D

14



0,8

1,25

$$2 + \frac{5}{6} = \frac{17}{6} = c$$

Cevap B

$$c = 2,8\overline{3}$$

15



Yukarıda sayı doğrusunun $[0, 1]$ aralığındaki kısmı verilmiştir. Bu doğru parçası önce 3 eşit parçaya bölünüp ortadaki parçası atılıyor.



2. adımda kalan parçalara aynı işlem uygulanıyor



ve yukarıdaki parçalar elde ediliyor.

Her defasında geriye var olan
gubüğün uzunluğunun $\frac{2}{3}$ 'ü
kalacağından,

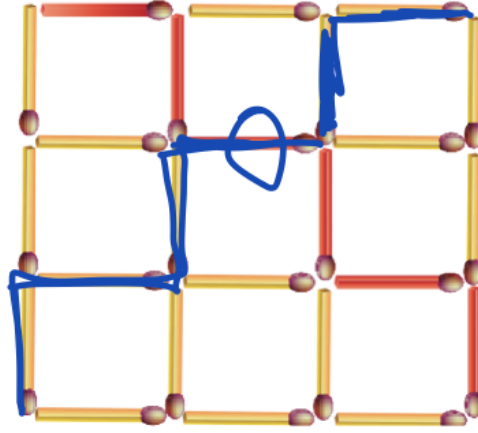
$$1 \cdot \frac{2}{3} \cdot \frac{2}{3} \cdot \frac{2}{3} \cdot \frac{2}{3} \cdot \frac{2}{3}$$

Cevap A

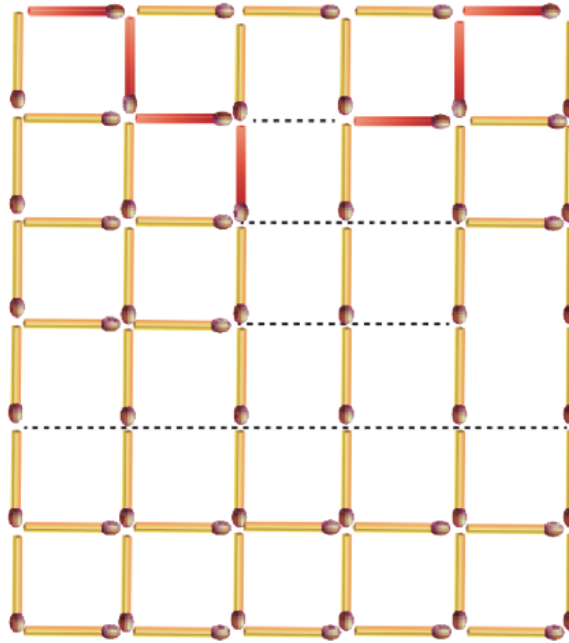
$$\frac{32}{343} = \frac{a}{b}$$

$$b - a = 211 \text{ olur.}$$

16



3x3 te
6 kırmızı
diğer taraftan
da 6 kırmızı
1 tane çıkarılır.



39 x 39
çıkışın
↑
78.2 - 1

39.40.2
↓
tüm kibrit
gözü

Cevap D

$$= \frac{31}{624}$$