

16. Koordinat sisteminde;

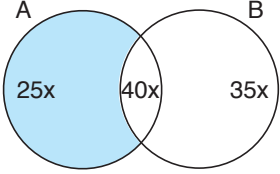
$a > 4$ ve $b < -2$ olmalı.

$a = 5$ $b = -5$ değerleri denklemi sağlar.

$$(a \cdot b)_{\min} = -25$$

Cevap: C

17.



Sınıf : $100x$

$$A = 65x$$

$$B = 75x$$

$$A \text{ ve } B = 40x$$

$$25x = 16 \text{ ise } 100x = 16.4 = 64$$

Cevap: C

18. $a \oplus b = a \cdot (a+b)^2 - 11$

$$(k+2) \oplus (3-k) = (k+2) \cdot (k+2+3-k)^2 - 11 = 79$$

$$(k+2) \cdot 25 = 90$$

$$k+2 = \frac{90}{25} \Rightarrow k = \frac{8}{5}$$

Cevap: D

19. Grafikte;

$$f^{-1}(0) = 1$$

$$\frac{1+4}{-5+0} = \frac{+5}{-5} = -1$$

$$f^{-2}(-5) = 4$$

$$f(4) = -5$$

$$f^{-1}(2) = 0$$

Cevap: A

20.

$$a_1 = 1-1 = 0$$

$$a_2 = 2-1 = 1$$

$$a_3 = 3-1 = 2$$

$$\vdots \quad \vdots \quad \vdots$$

$$+ a_9 = 9-1 = 8$$

$$\hline 36$$

$$a_{10} = 1.0-1 = -1$$

$$a_{11} = 1.1-1 = 0$$

$$a_{12} = 1.2-1 = 1$$

$$\vdots \quad \vdots \quad \vdots$$

$$+ a_{19} = 19-1 = 8$$

$$\hline 35$$

$$a_{20} = 2+0+1 = 3$$

$$a_{21} = 2+1+1 = 4$$

$$a_{22} = 2+2+1 = 5$$

$$+ a_{23} = 2+3+1 = 6$$

$$\hline 18$$

$$36 + 35 + 18 = 89$$

Cevap: D

21.

$$\frac{A}{x}$$

$$\frac{B}{y}$$

$$\frac{C}{z}$$

$$\frac{D}{t}$$

$$x+y = 15$$

$$+ \quad y+z = 23$$

$$\hline x+z+2y = 38$$

$$x+y+z+t = 52 \text{ ve } t = 3y \text{ dir.}$$

$$38 - 2y + y + 3y = 52$$

$$2y = 14$$

$$x+z = 38-2y$$

$$y = 7 \text{ yerine yazarsak;}$$

$$x = 8$$

Cevap: B

22.

	<u>Ceren</u>	<u>Fatma</u>
1 dk:	1 soru	$\frac{3}{4}$ soru
Bitirme süresi:	72 dk	$\frac{24}{72} \cdot \frac{4}{3} = 96$ dk

Soru bankasında x soru olsun

Ceren: x dk

Fatma: $\frac{x}{3} = \frac{4x}{3}$ dk soru çözer.

$$x + \frac{4x}{3} = \frac{7x}{3} = 168$$

$$x = 72$$

Ceren ve Fatma arasında;

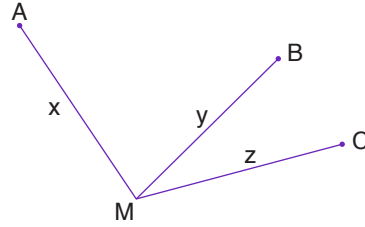
$$96 - 72 = 24 \text{ dakika fark olur.}$$

O halde Fatma;

$$24 \cdot \frac{3}{4} = 18 \text{ soru daha çözmeli.}$$

Cevap: D

24.



$$\frac{y+z}{2} = x \Rightarrow y+z = 2x$$

$$\frac{x+z}{2} = \frac{y+z}{2} - 10 \Rightarrow x+z = y+z-20$$

$$\frac{x+y+z}{3} = 180 \Rightarrow x + \frac{y+z}{2} = 540$$

$$3x = 540$$

$$\boxed{x = 180}$$

$$y = 200$$

$$\boxed{z = 160}$$

M'ye en yakın Z şehri

Cevap: B

23.

$$x \cdot \sqrt[4]{16} = \sqrt[3]{12}(x+40)$$

$$4x = 3x + 120$$

$$x=120 \Rightarrow \text{Halat} = 120 \cdot 16 = 1920 = 19,2 \text{ m}$$

Cevap: C

25.

<u>Baba</u>	<u>Büyük Ç.</u>	<u>Küçük Ç.</u>
7x	x	0
↓ +4	↓ +4	↓ +4
7x+4	x+4	4

$$7x + 4 = 3 \cdot (x+8) - 4 \Rightarrow 7x + 8 = 3x + 24$$

$$4x = 16$$

$$x = 4 \quad 6x \text{ sorulmuş.}$$

$$6 \cdot 4 = 24$$

Cevap: B

26.

1. Nesne	22	46	
Yanlış:		50	} % 8 eksik
Doğru	$10x=20$		
	↓		
	2		

$$10x \cdot \frac{11\emptyset}{1\emptyset\emptyset} = 22 \Rightarrow 11x = 22$$

$x = 22$

iki nesne beraber;
 $50 + 20 = 70$

2. tartı % 8 eksik tartıyor.

$$70 \cdot \frac{92}{100} = 64,4$$

Cevap: D

27.

18 TL den	x kitap	} $18x+12x=30x$ para olur.
12 TL'den	x kitap	

$$30x \cdot \frac{30}{100} = 9x \rightarrow \text{indirimsiz}$$

$$\frac{9x}{18} + \frac{21x}{12} = 2x + 5$$

$$30x - 9x = 21x \rightarrow \text{indirimli}$$

$$\frac{18x + 63x}{36} = 2x + 5$$

$$81x = 72x + 180$$

$$9x = 180$$

$$x = 20$$

$$2x = 40$$

Cevap: C

28.

1 saat :	$\frac{A}{3}$	$\frac{B}{5}$
60 saat :	x	$60-x$

$$3 \cdot x + 5 \cdot (60-x) = 204$$

$$3x + 300 - 5x = 204$$

$$300 - 2x = 204$$

$$2x = 96$$

$$x = 48$$

$$A : 48 \cdot 3 = 144 \text{ ürün}$$

$$B : 12 \cdot 5 = 60 \text{ ürün}$$

$$144 - 60 = 84$$

Cevap: E

29.

	$\frac{A}{72}$	$\frac{B}{36}$	$\frac{C}{108}$
P.suyu:	72	36	108
Kalan:	3x	4x	2x

$$36 + 4x = 108 + 2x$$

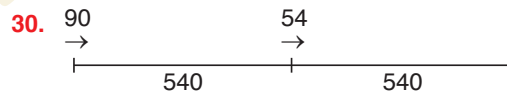
$$2x = 72$$

$$x = 36$$

$$A = 72 + 108$$

$$A = 180$$

Cevap: E



Giderken;

$$\frac{540}{90} + \frac{540}{54} = 6 + 10 = 16 \text{ saat}$$

Dönerken yolun $\frac{5}{9}$

$$1080 \cdot \frac{5}{9} = 600 \text{ km dir.}$$

$$\frac{600}{100} + \frac{480}{x} = 16 - 4$$

$$6 + \frac{480}{x} = 12 \quad \text{ise} \quad \boxed{x = 80}$$

Cevap: D