

1) $\frac{2}{7} + \frac{3}{7} = ?$

A) $\frac{5}{7}$

B) $\frac{6}{7}$

C) $\frac{5}{14}$

D) $\frac{5}{49}$

E) $\frac{6}{49}$

2) $0,84 + 0,25 = ?$

A) 0,109

B) 1,09

C) 0,865

D) 0,334

E) 1,9

3) $8 + 32 \div 8 \cdot 2 = ?$

A) 10

B) 12

C) 14

D) 16

E) 20

4) $\frac{0,5}{0,25} = ?$

A) 200

B) 20

C) 2

D) 0,2

E) 0,02

5) $\sqrt{49} - 2\sqrt{25} = ?$

A) -5

B) -3

C) -1

D) 1

E) 3

6) $2(x+3)+1=17 \Rightarrow x = ?$

A) 2

B) 3

C) 4

D) 5

E) 6

7) $1 + \frac{4}{3 + \frac{5}{x}} = 2 \Rightarrow x = ?$

A) 5

B) 4

C) 3

D) 2

E) 1

8) $\begin{cases} 2a+3b=13 \\ a+b=5 \end{cases} \Rightarrow a = ?$

A) 1

B) 2

C) 3

D) 4

E) 5

9) $\frac{8^{2012}}{2} = ?$

A) 8^{1006}

B) 4^{2012}

C) 4^{1006}

D) 2^{6035}

E) 8^{2011}

10) $(10,7)^2 - (9,3)^2 = ?$

- A) 0,6 B) 6 C) 12
D) 20 E) 28

11) $\frac{a}{a+b} + \frac{b}{a-b} = ?$

- A) $\frac{a^2+b^2}{a^2-b^2}$ B) $\frac{a^2-b^2}{a^2+b^2}$ C) 1
D) $\frac{a-b}{a+b}$ E) $\frac{a+b}{a-b}$

12) $2011^2 + 4022x + x^2 = 2012^2$, $x > 0$, $x = ?$

- A) 2011 B) 2012 C) 4022
D) 4023 E) 1

13) $1 + 2011 + 2011^2 + \dots + 2011^{2010} = \frac{x-1}{2010}$, $x = ?$

- A) 2011^{2012} B) 2011^{2011} C) 2011^{2010}
D) 2010^{2010} E) 2011

14)
$$\begin{cases} \frac{11}{13} + \frac{15}{17} + \frac{21}{23} = x \\ \frac{15}{13} + \frac{2}{17} + \frac{25}{23} = y \end{cases} \Rightarrow x = ?$$

- A) $y+1$ B) $y-1$ C) $y-3$
D) $y-5$ E) $5-y$

15)
$$\begin{cases} a + \frac{1}{b} = 5 \\ b + \frac{1}{a} = 4 \end{cases} \Rightarrow \frac{a+b}{a-b} = ?$$

- A) 9 B) 7 C) 1
D) -7 E) -9

16) $x > 0$ and
$$\begin{cases} x + \frac{1}{x} = a \\ x - \frac{1}{x} = b \end{cases} \Rightarrow a = ?$$

- A) $\sqrt{b^2+4}$ B) $b+2$ C) b
D) $b-2$ E) $b-3$

17) $\left(1 - \frac{1}{2}\right) \cdot \left(1 - \frac{1}{3}\right) \cdot \left(1 - \frac{1}{4}\right) \cdots \left(1 - \frac{1}{2011}\right) = ?$

A) $\frac{2010}{2011}$ B) $\frac{2011}{2010}$ C) 1

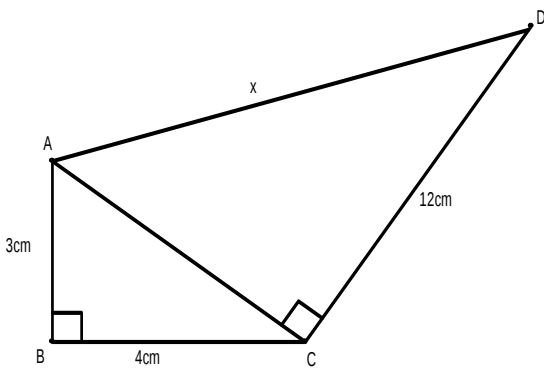
D) $\frac{1}{2011}$ E) $\frac{1}{2010}$

18) $2a = 3b = 5c \Rightarrow \frac{\frac{1}{a} - \frac{1}{b} + \frac{1}{c}}{\frac{1}{a} + \frac{1}{b} + \frac{1}{c}} = ?$

A) $\frac{5}{2}$ B) $\frac{2}{5}$ C) 1

D) $\frac{1}{5}$ E) $\frac{1}{2}$

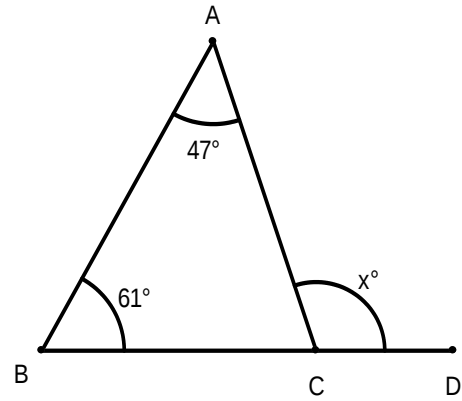
19) $\angle ABC = \angle ACD = 90^\circ$, $AB = 3\text{cm}$,
 $BC = 4\text{cm}$, $CD = 12\text{cm} \Rightarrow x = ?$



A) 10 cm B) 12 cm C) 13 cm

D) 15 cm E) 17 cm

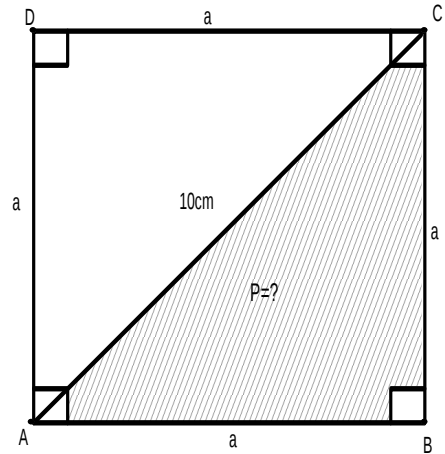
20) $\angle ABC = 61^\circ$, $\angle BAC = 47^\circ \Rightarrow x = ?$



A) 132° B) 122° C) 108°

D) 100° E) 72°

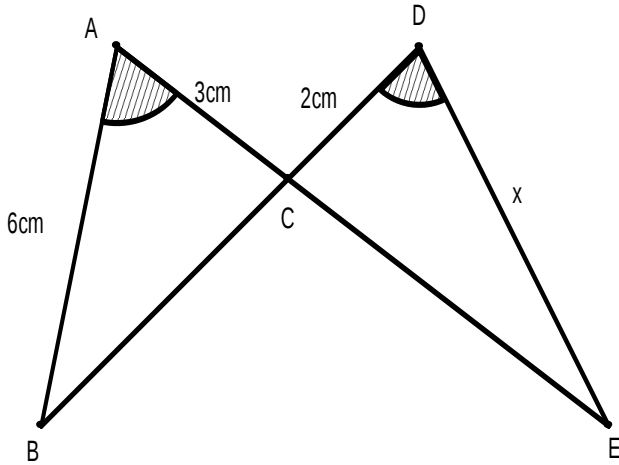
21) $AB = BC = CD = DA = a$, $AC = 10\text{cm}$
 $\Rightarrow P_{\triangle ABC} = ?$



A) 20 cm^2 B) 25 cm^2 C) 30 cm^2

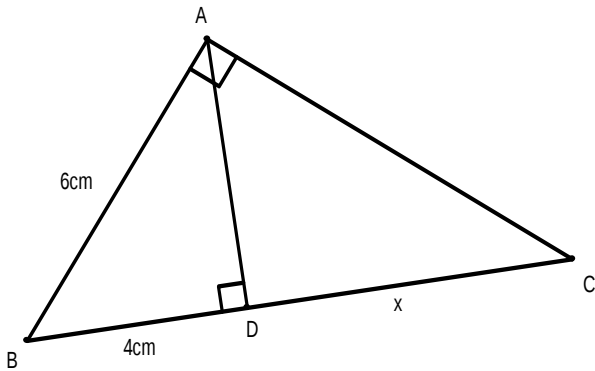
D) 50 cm^2 E) 100 cm^2

- 22) $\angle BAC = \angle CDE$, $AC = 3\text{cm}$,
 $CD = 2\text{cm}$, $AB = 6\text{cm} \Rightarrow x = ?$



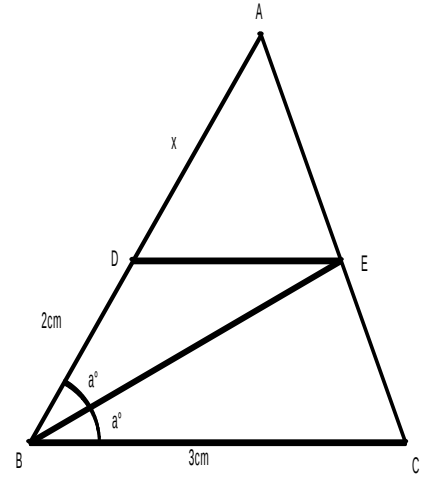
- A) 2 cm B) 3 cm C) 4 cm
 D) 5 cm E) 6 cm

- 23) $\angle BAC = \angle ADC = 90^\circ$, $AB = 6\text{cm}$,
 $BD = 4\text{cm} \Rightarrow x = ?\text{cm}$



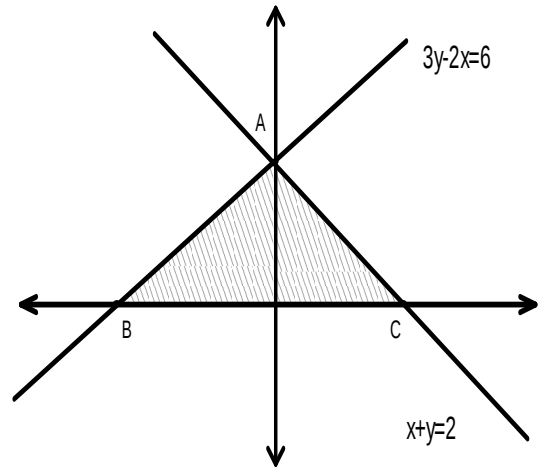
- A) 5 B) 4 C) 9
 D) 12 E) 15

- 24) $DE \parallel BC$, $\angle ABE = \angle CBE$, $DB = 2\text{cm}$,
 $BC = 3\text{cm} \Rightarrow AD = x = ?$



- A) 1 cm B) 2 cm C) 3 cm
 D) 4 cm E) 6 cm

- 25) $P_{\triangle ABC} = ?$



- A) 2 B) 4 C) 5
 D) 10 E) 8

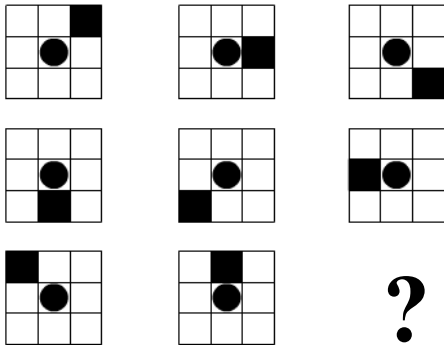
26) 9, 7, 8, 6, 7, 5, ?

- A) 8 B) 7 C) 6 D) 5 E) 3

27) 3, 6, 18, 21, 33, ?

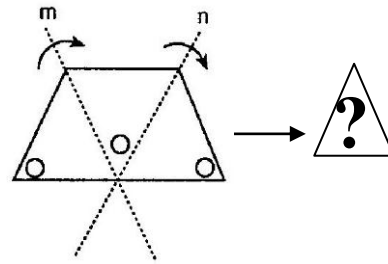
- A) 39 B) 43 C) 45 D) 48 E) 36

28)



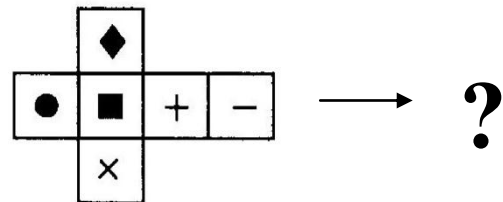
- A) B) C)
D) E)

29)



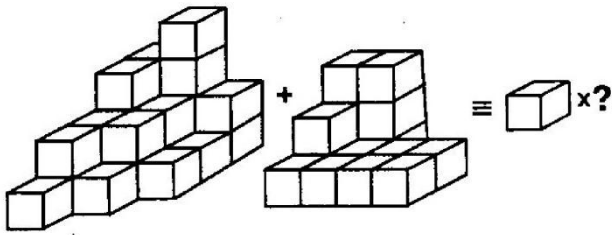
- A) B) C)
D) E)

30)



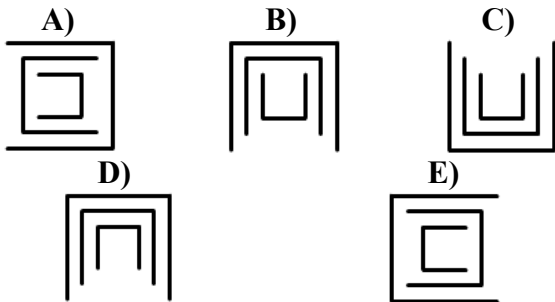
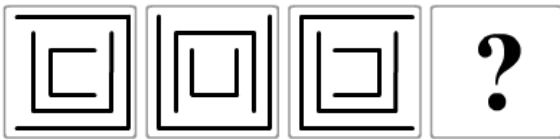
- A) B) C)
D) E)

31)

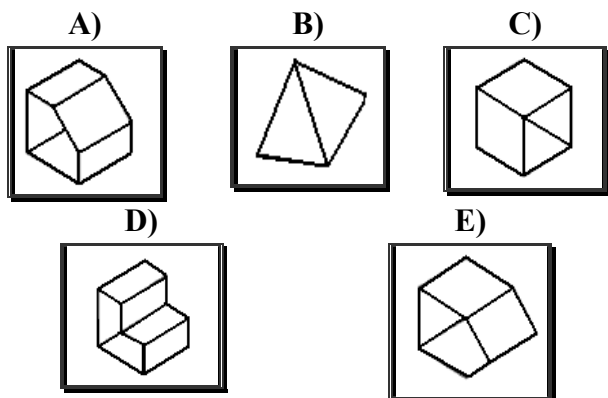
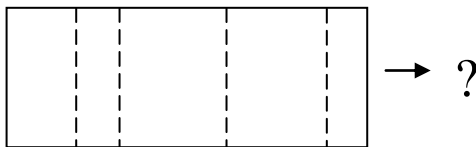
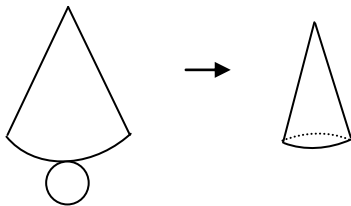


A) 39 B) 41 C) 43 D) 45 E) 48

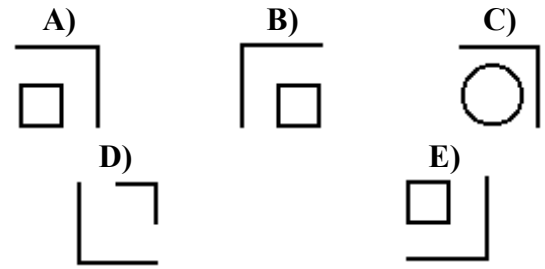
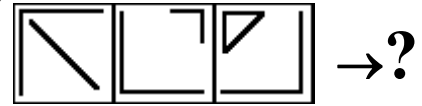
32)



33)



34)



35)

$$\left. \begin{array}{l} 526 \\ 423 \\ 723 \\ 123 \\ 124 \end{array} \right\} \Rightarrow \left\{ \begin{array}{ll} \text{HOP} & \text{MOD} \\ & \text{TOP} \\ \text{KOP} & \text{TOK} \end{array} \right.$$

$$124 = ?$$

A) HOP B) MOD C) TOP
D) KOP E) TOK

36)

$$\begin{array}{l} 4 \bullet 5 \rightarrow 36,45 \\ 2 \bullet 8 \rightarrow 20,80 \\ 3 \bullet 7 \rightarrow 30,70 \\ 3 \bullet 6 \rightarrow ?,? \end{array}$$

A) 24,24 B) 24,54 C) 9,3
D) 27,54 E) 27,36

37)

$$\begin{array}{l} 49 \blacklozenge \rightarrow 26 \\ 25 \blacklozenge \rightarrow 14 \\ 28 \blacklozenge \rightarrow 20 \\ 56 \blacklozenge \rightarrow ? \end{array}$$

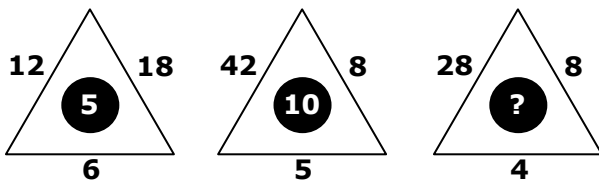
A) 22 B) 16 C) 10
D) 8 E) 4

38)

$$\begin{aligned} 2 \spadesuit 3 &= 7 \\ 4 \spadesuit 6 &= 22 \\ 7 \clubsuit 5 &= 2 \\ 8 \clubsuit 4 &= 4 \\ (6 \spadesuit 5) \clubsuit 8 &=? \end{aligned}$$

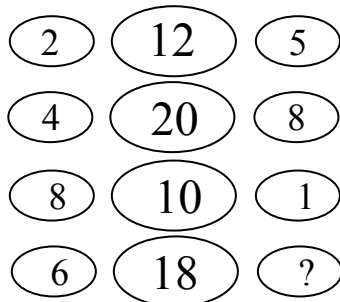
A) 33 B) 36 C) 41 D) 49 E) 60

39)



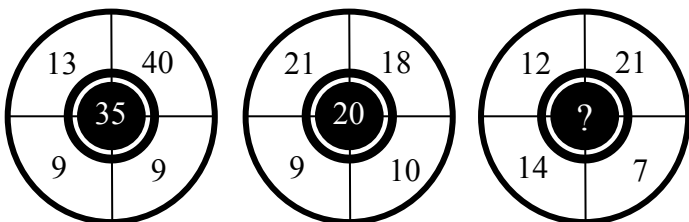
A) 15 B) 14 C) 10 D) 9 E) 5

40)



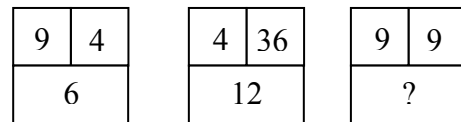
A) 1 B) 3 C) 4 D) 5 E) 6

41)



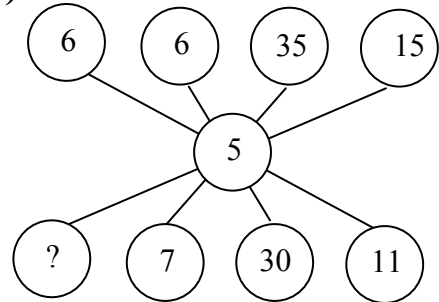
A) 7 B) 12 C) 19 D) 22 E) 23

42)



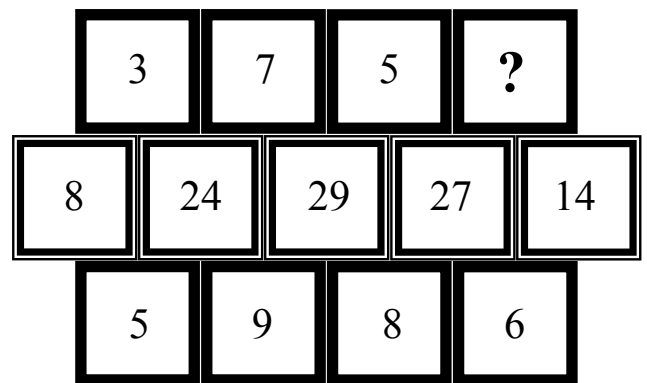
A) 17 B) 12 C) 9 D) 6 E) 3

43)



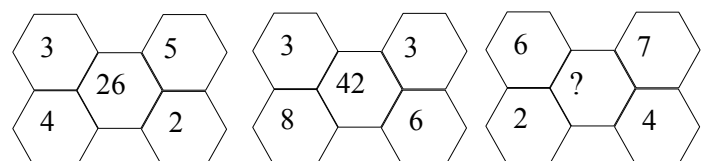
A) 8 B) 9 C) 10
D) 12 E) 24

44)



A) 12 B) 10 C) 8 D) 5 E) 3

45)



A) 58 B) 52 C) 38 D) 30 E) 20

46) Со нападот на Германија врз која од долунаведените држави, на 1 Септември 1939 година започна Втората Светска Војна?

- A) Русија B) Франција C) Англија
D) Чекословачка E) Полска

47) Која од долунаведените соединенија не е органска?

- A) CH_4 B) C_2H_6 C) H_2SO_4
D) C_2H_2 E) C_2H_4

48) Кое од долунаведените апарати служи за мерење на интензитетот на електричната енергија?

- A) Волтметар B) Амперметар
C) Термометар D) Динамометар
E) Генератор

49) Која од долунаведените елементи е метал?

- A) Водород B) Кислород C) Хелиум
D) Железо E) Неон

50) Најпозната лубовна драма на Шекспир која завршува трагично?

- A) Сонети B) Бура C) Магбет
D) Ромео и Жулиета E) Тартуф

51) Кое од долунаведените не е оптички апарат?

- A) Микроскоп B) Динамометар
C) Фотоапарат D) Телескоп E) Очила

46) Мë 1 Shtator të vitit 1939, me sulmin e Gjermanisë, në cilën nga shtetet e mëposhtme, nisi Lufta e Dytë Botërore?

- A) Rusi B) Francë C) Angli
D) Çekoslovaki E) Poloni

47) Cili nga komponimet e mëposhtme nuk është komponim organik?

- A) CH_4 B) C_2H_6 C) H_2SO_4
D) C_2H_2 E) C_2H_4

48) Si quhet vegla për matjen e intenzitetit të rrymës elektrike?

- A) Voltmetër B) Ampermetër
C) Termometër D) Dinamometër
E) Gjenerator

49) Cili element është metal?

- A) Hidrogjeni B) Oksigjeni C) Heliumi
D) Hekuri E) Neoni

50) Cila është drama me motive të dashurisë e Shekspirit që përfundon tragjikisht?

- A) Soneti B) Bura C) Magbeti
D) Romeo dhe Zhulieta E) Tartufi

51) Cila nuk është vegël optike?

- A) Mikroskopi B) Dinamometri
C) Fotoaparati D) Teleskopi E) Syzat

46) 1 Eylül 1939 yılında Almanya'nın hangi ülkeye saldırmasıyla İkinci Dünya Savaşı başlamıştır?

- A) Rusya B) Fransa C) İngiltere
D) Çekoslovakya E) Polonya

47) Aşağıdakilerden hangisi organik bileşik değildir?

- A) CH₄ B) C₂H₆ C) H₂SO₄
D) C₂H₂ E) C₂H₄

48) Elektrik akımını ölçen cihaz hangisidir?

- A) Voltmetre B) Ampermetre
C) Termometre D) Dinamometre
E) Jeneratör

49) Aşağıdakilerden hangisi metaldir?

- A) Hidrojen B) Oksijen C) Helyum
D) Demir E) Neon

50) Şekspir'in trajik sonuçlanan en ünlü aşk eseri hangisidir?

- A) Soneti B) Bura C) Magbet
D) Romeo ve Juliet E) Tartuf

51) Hangisi optik alet değildir?

- A) Mikroskop
B) Dinamometre
C) Fotoğraf makinesi
D) Teleskop
E) Gözlükler

46) Which one of the following countries did Germany invade on the 1st of September 1939, thus starting the Second World War?

- A) Russia B) France C) England
D) Czechoslovakia E) Poland

47) Which one of the following compounds is not organic?

- A) CH₄ B) C₂H₆ C) H₂SO₄
D) C₂H₂ E) C₂H₄

48) Which one of the following apparatuses is used to measure electric current?

- A) Voltmeter B) Ammeter
C) Thermometer D) Dynamometer
E) Generator

49) Which of the followings is metal?

- A) Hydrogen B) Oxygen C) Helium
D) Iron E) Neon

50) Which of the followings is the most famous love story tragedy of Shakespeare?

- A) Sonnet B) Wring C) Macbeth
D) Romeo and Juliet E) Tartuffe

51) Which of the followings is not an optical instrument?

- A) Microscope
B) Dynamometer
C) Camera
D) Telescope
E) Glasses

52) Која од овие држави не се граничи со Македонија?

- A) Русија
- B) Албанија
- C) Грција
- D) Бугарија
- E) Србија

53) Колку степени целсиусови се еднакви на 300 K?

- A) 10 °C
- B) 20 °C
- C) 27 °C
- D) 30 °C
- E) 37 °C

54) Која држава се наоѓа во Азија?

- A) Египет
- B) Танзанија
- C) Канада
- D) Индија
- E) Грција

55) Кое од долунаведените е сателит на Земјата?

- A) Марс
- B) Месечина
- C) Јупитер
- D) Сатурн
- E) Нептун

56) Која од долунаведените спортски дисциплини не се игра со раце?

- A) Кошарка
- B) Ракомет
- C) Одбојка
- D) Фудбал
- E) Пинг понг

52) Cili nga shtetet e mëposhtme nuk kufizohet me Maqedoninë?

- A) Rusia
- B) Shqipëria
- C) Greqia
- D) Bullgaria
- E) Serbia

53) Sa gradë celsius janë të barabartë me 300 K?

- A) 10 °C
- B) 20 °C
- C) 27 °C
- D) 30 °C
- E) 37 °C

54) Cili shtet gjendet në Azi?

- A) Egjipti
- B) Tanzanija
- C) Kanadaja
- D) Indija
- E) Greqia

55) Cili është sateliti i Tokës?

- A) Marsi
- B) Hëna
- C) Jupiteri
- D) Saturni
- E) Neptuni

56) Cili nga sportet e mëposhtme nuk luhet me dorë?

- A) Basketbolli
- B) Hendbolli
- C) Volejbolli
- D) Fudbolli
- E) Ping Pongu

52) Hangisi Makedonya'nın komşu ülkesi değildir?

- A) Rusya
- B) Arnavutluk
- C) Yunanistan
- D) Bulgaristan
- E) Sırbistan

53) Aşağıdakilerden hangisi 300 K eşittir?

- A) 10 °C
- B) 20 °C
- C) 27 °C
- D) 30 °C
- E) 37 °C

54) Aşağıdakilerden hangisi bir Asya ülkesidir?

- A) Mısır
- B) Tanzanya
- C) Kanada
- D) Hindistan
- E) Yunanistan

55) Aşağıdakilerden hangisi Dünya'nın uydusudur?

- A) Mars
- B) Ay
- C) Jupiter
- D) Saturn
- E) Neptun

56) Aşağıdaki spor dallarında hangisi el ile oynanmaz?

- A) Basketbol
- B) Hentbol
- C) Voleybol
- D) Futbol
- E) Ping pong

52) Which of the followings is not one of the neighbour countries of Macedonia?

- A) Russia
- B) Albania
- C) Greece
- D) Bulgaria
- E) Serbia

53) Which of the followings is equal to 300 K?

- A) 10 °C
- B) 20 °C
- C) 27 °C
- D) 30 °C
- E) 37 °C

54) Which of the following country is found in Asia?

- A) Egypt
- B) Tanzania
- C) Kanada
- D) India
- E) Greece

55) Which of the followings is the satellite of Earth?

- A) Mars
- B) Moon
- C) Jupiter
- D) Saturn
- E) Neptun

56) Which of the following sports can not be played with hands?

- A) Basketball
- B) Handball
- C) Volleyball
- D) Football
- E) Ping pong

57) Кој ден е ден на екологија?

- A) 8 Март
- B) 21 Март
- C) 1 Мај
- D) 24 Мај
- E) 11 Октомври

58) Кој хемичар ги подредил хемиските елементи во периодниот систем на елементите?

- A) Бор
- B) Паскал
- C) Кекуле
- D) Менделеев
- E) Тесла

59) Колку е притисокот на воздухот на морско ниво?

- A) 1 atm
- B) 100 atm
- C) 100000 atm
- D) 10 atm
- E) 1000 atm

60) Која е најмалата функционална и структурна единица на живите организми?

- A) Клетка
- B) Органела
- C) Цитопласма
- D) Клеточна мембрана
- E) Јадро

57) Cila është dita e ekologjisë?

- A) 8 Marsi
- B) 21 Marsi
- C) 1 Maji
- D) 24 Maji
- E) 11 Tetori

58) Cili kimist bëri renditjen e elementeve në sistemin periodik?

- A) Bori
- B) Paskali
- C) Kekuleja
- D) Mendeleevi
- E) Tesla

59) Sa është shtypja e ajrit në nivelin e detit?

- A) 1 atm
- B) 100 atm
- C) 100000 atm
- D) 10 atm
- E) 1000 atm

60) Cila është njësia ndërtuese kryesore me e vogël e një gjallese?

- A) Qeliza
- B) Organela
- C) Citoplazma
- D) Membrana
- E) Berthama

- 57)** Ekoloji Günü hangi tarihte kutlanır?
- A) 8 Mart
B) 21 Mart
C) 1 Mayıs
D) 24 Mayıs
E) 11 Ekim
- 58)** Elementlerin periyodik sistemi hangi kimyager tarafından bulunmuştur?
- A) Bor
B) Paskal
C) Kekule
D) Mendeleev
E) Tesla
- 59)** Deniz seviyesinde hava basıncının değeri ne kadardır?
- A) 1 atm
B) 100 atm
C) 100000 atm
D) 10 atm
E) 1000 atm
- 60)** Bir canlının en küçük yapı taşı aşağıdakilerden hangisidir?
- A) Hücre
B) Organel
C) Stoplazma
D) Hücre zarı
E) Çekirdek

- 57)** Which is the Day of Ecology?
- A) 8 March
B) 21 March
C) 1 May
D) 24 May
E) 11 October
- 58)** Which of the following chemists has found the periodic system of elements?
- A) Bor
B) Pascal
C) Kekule
D) Mendeleev
E) Tesla
- 59)** What is the air pressure at the sea level?
- A) 1 atm
B) 100 atm
C) 100000 atm
D) 10 atm
E) 1000 atm
- 60)** What is the smallest basic unit in living organisms?
- A) Cell
B) Organelle
C) Cytoplasm
D) Membrane
E) Nucleus

SUBJECT	QUESTION	ANSWERS
MAT	1	A
MAT	2	B
MAT	3	D
MAT	4	C
MAT	5	B
MAT	6	D
MAT	7	A
MAT	8	B
MAT	9	D
MAT	10	E
MAT	11	A
MAT	12	E
MAT	13	B
MAT	14	E
MAT	15	A
MAT	16	A
MAT	17	D
MAT	18	B
MAT	19	C
MAT	20	C
MAT	21	B
MAT	22	C
MAT	23	A
MAT	24	D
MAT	25	C
IQ	26	C
IQ	27	E
IQ	28	E
IQ	29	D
IQ	30	E

SUBJECT	QUESTION	ANSWERS
IQ	31	A
IQ	32	D
IQ	33	D
IQ	34	A
IQ	35	E
IQ	36	D
IQ	37	A
IQ	38	A
IQ	39	D
IQ	40	E
IQ	41	B
IQ	42	C
IQ	43	C
IQ	44	C
IQ	45	C
GENKNOWLEDGE	46	E
GENKNOWLEDGE	47	C
GENKNOWLEDGE	48	B
GENKNOWLEDGE	49	D
GENKNOWLEDGE	50	D
GENKNOWLEDGE	51	B
GENKNOWLEDGE	52	A
GENKNOWLEDGE	53	C
GENKNOWLEDGE	54	D
GENKNOWLEDGE	55	B
GENKNOWLEDGE	56	D
GENKNOWLEDGE	57	B
GENKNOWLEDGE	58	D
GENKNOWLEDGE	59	A
GENKNOWLEDGE	60	A