NAMUNA 11-SINF UCHUN

1. Super marketdagi 5 xil mevadan 2 xilini sotib olmoqchimiz. Buni necha xil usulda bajara olamiz?

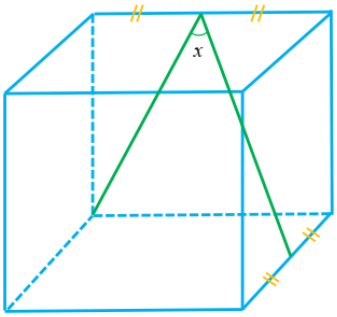
   A) 10 B) 12 C) 16 D) 15

2. Tenglamaning ildizlari ko‘paytmasini toping:

$$\sqrt{x^2+10+6\sqrt{1+x^2}}+\sqrt{2+x^2-2\sqrt{x^2+1}}=4$$

   A) 0 B) 2 C) 4 D) -4

3. Shaklda berilgan kub uchun $cosx$ ning qiymati toping.



   A) $\frac{\sqrt{30}}{10}$ B) $\frac{10\sqrt{3}}{3}$ C) $\frac{\sqrt{3}}{2}$ D) $\frac{3\sqrt{5}}{10}$

4. $\begin{cases} x^{y+1}=27 \\ x^{2y-12}=\frac{1}{3} \end{cases}$ tenglamani qanoatlantiruvchi *x* va *y* larning ko‘paytmasini toping.

   A) $5\sqrt{3}$ B) 15 C) $\sqrt{15}$ D) $\frac{\sqrt{15}}{3}$

5. Tenglama nechta yechimga ega: $|x^2-6x+8|^{x-6}=|x^2-6x+8|$.

   A) 4 B) 2 C) 3 D) 5

6. $\begin{cases} 5^x+5^{-x}=13 \\ 28^x<17^x \end{cases}$ ekanligi ma’lum bo‘lsa, $5^x-5^{-x}=?$

   A) $\sqrt{165}$ B) $\sqrt{135}$ C) $-\sqrt{155}$ D) $-\sqrt{145}$

7. $9^{-x}-\frac{28}{3^{x+1}}+3<0$ tengsizlikni qanoatlantiruvchi butun sonlar yig‘indisini toping.

   A) -1 B) 1 C) 0 D) -2

8. Berilgan jadvaldan moslikni toping:

1.	$\boldsymbol{z = -2i}$	A) $\boldsymbol{z = 2(cos\frac{4\pi}{3} + isin\frac{4\pi}{3})}$
2.	$z = -1 - \sqrt{3}i$	B) $z = e^{\frac{\pi}{2}i}$
3.	$z = \sqrt{3} - i$	C) $z = 2e^{\frac{3\pi}{2}i}$
4.	$z = \sqrt{2} - \sqrt{2}i$	D) $z = 2e^{\frac{2\pi}{3}i}$
5.		E) $z = 2(cos\frac{7\pi}{4} + sin\frac{7\pi}{4})$

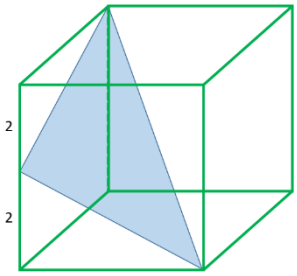
A) 1-*C;* 2-*A;* 3-*D;* 4-*E*

B) 1-*A;* 2-*B;* 3-*D;* 4-*C*

C) 1-*B;* 2-*A;* 3-*C;* 4-*E*

D) 1-*C;* 2-*B;* 3-*E;* 4-*C*

9. Berilgan kub ma'lumotlaridan foydalanib bo'yalgan sohani yuzini toping.



A) $4\sqrt{6}$ B) $2\sqrt{12}$ C) $\sqrt{26}$ D) $6\sqrt{3}$

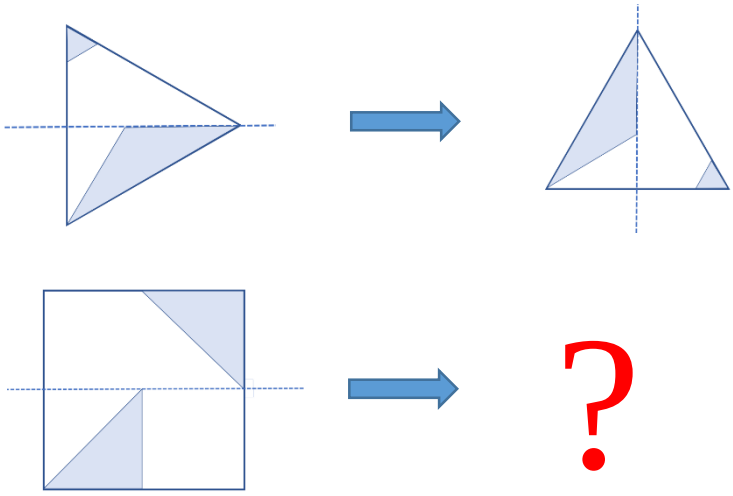
10. $\begin{cases} log_5 2 = x \\ log_5 3 = y \end{cases}$ berilgan bo'lsa, $log_{25}6$ nimaga teng bo'ladi?

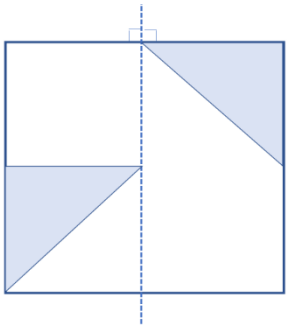
A) $\frac{x+y}{2}$ B) $\frac{xy}{x+y}$ C) $\frac{x+y}{x}$ D) $x - y$

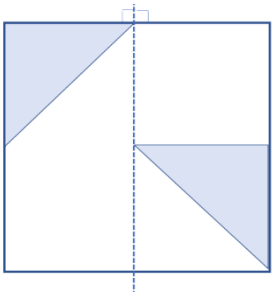
11. $z = \frac{i^{75}+i^{68}}{i^{84}}$ berilgan. $\bar{z} = ?$

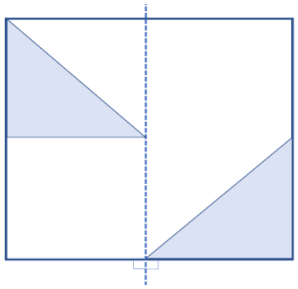
A) 1+*i* B) -1 C) *i* D) 1-*i*

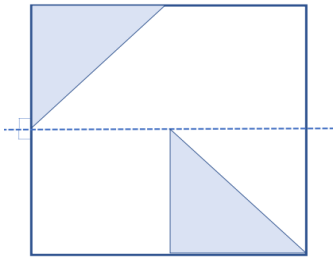
12. Berilgan almashtirishdan mosini toping.



A) 

B) 

C) 

D) 

13. $(\sqrt{2+\sqrt{3}})^x + (\sqrt{\sqrt{2\sqrt{3}+4}+1})^x = 4$ tenglamani ildizlari nisbati nimaga teng?

A) -1 B) 2 C) -2 D) 0

14. Qaysi tenglama haqiqiy ildizga ega?

1) $3^x + 4 \cdot 2^x = -5$; 2) $cosx + \frac{3}{7} = 5$; 3) $x^2 + 100x - 101 = 0$;

4) $\sqrt{(x-11)^2} = 11 - x$; 5) $log_4(2x-1) = -3$

A) 3, 4, 5 B) 1, 3, 5 C) 2, 4, 5 D) 3, 5

15. Berilganlardan qaysi biri

$$cos2x - 5sinx - 3 = 0$$

tenglamani yechimi bo‘ladi?

A) $x = (-1)^{n+1}\frac{\pi}{6} + \pi n, \ \ n \in Z$

B) $x = (-1)^n \frac{\pi}{6} + \pi n, \;\; n \in Z$

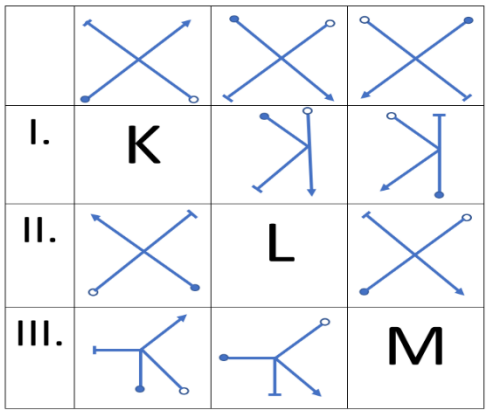
C) $x = (-1)^{n+1} \frac{\pi}{6} + 2\pi n, \;\; n \in Z$

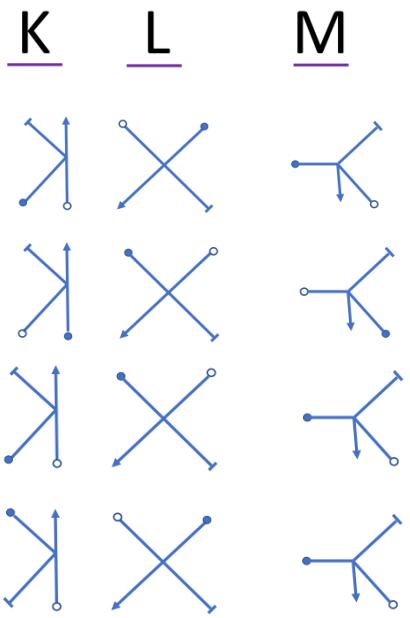
D) $x = (-1)^n \frac{\pi}{6} + 2\pi n, \;\; n \in Z$

16. Soddalashtiring: $\left(\frac{1}{\sqrt{2}-1}\right)^{\frac{log_6 log_6(\sqrt{2}+1)}{log_6(\sqrt{2}+1)}}$

A) $log_6(\sqrt{2}+1)$ B) $log_6(\sqrt{2}-1)$ C) $\frac{1}{\sqrt{2}-1}$ D) $\sqrt{2}+1$

17. K=?; L=?; M=?





18. Berilgan mulohazalarga mos javobni toping:

№	Mulohazalar	Doim to‘g‘ri	Ba’zan to‘g‘ri	Hech qachon to‘g‘ri emas
1.	Har qanday tekislikka parallel to‘g‘ri chiziq mavjud.	*A*	*B*	*C*
2.	Agar ikki kesishuvchi tekisliklarda hech	*A*	*B*	*C*

	bo‘lmaganda bitta perpendikulyar to‘g‘ri chiziqlar mavjud bo‘lsa, bu tekisliklar perpendikulyardir.			
3.	Silindr yasovchisi balandligiga parallel bo‘ladi.	*A*	*B*	*C*
4.	Prizmaning balandligi asos tekisligiga perpendikulyar va asoslari markazini tutashtiradi.	*A*	*B*	*C*

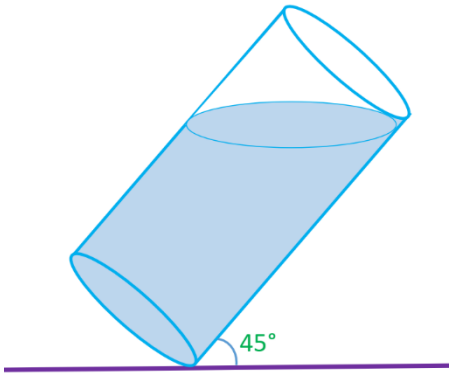
A) 1-*A;* 2-*B;* 3-*A;* 4-*B*

B) 1-*A;* 2-*A;* 3-*A;* 4-*C*

C) 1-*B;* 2-*C;* 3-*A;* 4-*C*

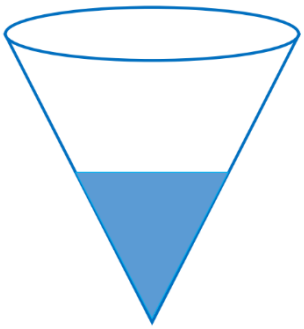
D) 1-*A;* 2-*C;* 3-*A;* 4-*B*

19. Rasmda berilgan balandligi 10 cm ga teng silindr shaklidagi idish 45° qiyalikda joylashtirish natijasida 2 cm qismi bo‘sh qoldi. Idishdagi suv hajmini toping.



A) 9π B) 20π C) $10\sqrt{2}\pi$ D) $5\sqrt{2}\pi$

20. Rasmda ko‘rsatilgan idish yarmigacha 4,5 litr suv quyildi. Idish to‘lishi uchun yana qancha suv quyilishi kerak?



A) 31,5 litr

B) 36 litr

C) 10 litr

D) 4,5 litr

21. Tenglamani yeching:

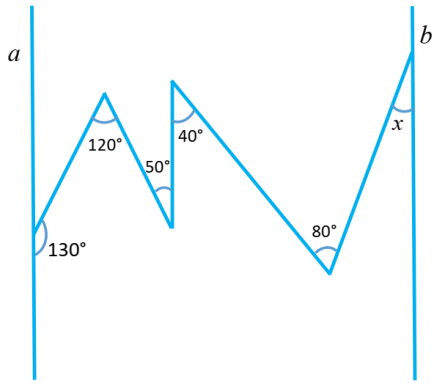
$$\frac{4^x + 8^x + 12^x}{5^x + 10^x + 15^x} = \frac{64}{125}$$

A) 3 B) 1,5 C) 2,5 D) -1

22. Agar $cos4x = acos^4x + bcos^2x + 1$ tenglik o‘rinli bo‘lsa, $a + b$ ning qiymatini toping.

A) 0 B) 1 C) 2,5 D) 3

23. Agar $a \parallel b$ bo‘lsa, x - ?



A) 20° B) 10° C) 60° D) 35°

24. $A = \frac{sin31°}{cos59°} + \frac{tg47°}{ctg43°}$ ekanligini bilgan holda, $sin\frac{\pi}{3A} + tg\frac{\pi}{2A}$ ifodaning qiymatini toping.

A) 1,5 B) -1 C) 5 D) -3

25. $a = 1^{0,(6)}$; $b = 8^{0,(3)}$; $c = 2^{0,(9)}$ bo‘lsa, $(a + b)^c$ =?

A) 9 B) 12 C) 15 D) 3