Chiziqli algebradan yakuniy nazorat test savollari. 1-mavzu

№	Жавобвариантлари	Савол	Қийинликдаражаси	Саволнингшаблондагирақами	Текширилаётгантаълимнатижалари
1.		Agar $\vec{a}=\begin{pmatrix}7\\4\end{pmatrix}$ vektorboshiningkoordinatalari $A(-2,3)$ bo‘lsa, uningoxiriningkoordinatalariniani qlang.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$(5;7)$			
	B	$(6;7)$			
	C	$(8;7)$			
	D	$(9;7)$			
2.		Agar $\vec{a}=\begin{pmatrix}7\\6\end{pmatrix}$ vektorboshiningkoordinatalari $A(-2,3)$ bo‘lsa, uningoxiriningkoordinatalariniani qlang.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$(5;9)$			
	B	$(5;7)$			
	C	$(6;7)$			
	D	$(8;7)$			
3.		Agar $\vec{a}=\begin{pmatrix}8\\6\end{pmatrix}$ vektorboshiningkoordinatalari $A(-2,3)$ bo‘lsa, uningoxiriningkoordinatalariniani qlang.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$(6;9)$			
	B	$(5;9)$			
	C	$(6;7)$			
	D	$(8;7)$			

4.		Agar $\vec{a}=\begin{pmatrix}9\\5\end{pmatrix}$ vektorboshiningkoordinatalari $A(-2,3)$ bo‘lsa, uningoxiriningkoordinatalariniani qlang.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$(7;8)$			
	B	$(6;9)$			
	C	$(8;7)$			
	D	$(6;7)$			
5.		Agar $\vec{b}=\begin{pmatrix}2\\-1\end{pmatrix}$ vektoroxiriningkoordinatalari $B(3,2)$ bo‘lsa, uning boshining koordinatalarini aniqlang.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$(1;3)$			
	B	$(7;8)$			
	C	$(8;7)$			
	D	$(6;9)$			
6.		Quyidagivektorlarningchiziqlikombinatsiyasi $5\vec{u}+7\vec{v}-2\vec{w}$ nitoping: $\vec{u}=\begin{pmatrix}2\\5\\3\end{pmatrix};\ \vec{v}=\begin{pmatrix}-1\\5\\6\end{pmatrix};\ \vec{w}=\begin{pmatrix}2\\5\\4\end{pmatrix}$	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix}-1\\50\\49\end{pmatrix}$			
	B	$\begin{pmatrix}-1\\5\\51\end{pmatrix}$			
	C	$\begin{pmatrix}-1\\50\\5\end{pmatrix}$			

	D	$\begin{pmatrix}-1\\5\\5\end{pmatrix}$			
7.		Quyidagivektorlarningchiziqlikombinatsiyasi $5\vec{u}+7\vec{v}-2\vec{w}$ nitoping: $\vec{u}=\begin{pmatrix}2\\3\\7\end{pmatrix};\ \vec{v}=\begin{pmatrix}2\\5\\6\end{pmatrix};\ \vec{w}=\begin{pmatrix}2\\5\\3\end{pmatrix}$	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix}20\\40\\71\end{pmatrix}$			
	B	$\begin{pmatrix}20\\30\\71\end{pmatrix}$			
	C	$\begin{pmatrix}20\\40\\70\end{pmatrix}$			
	D	$\begin{pmatrix}25\\40\\71\end{pmatrix}$			
8.		Quyidagivektorlarningchiziqlikombinatsiyasi $5\vec{u}+7\vec{v}-2\vec{w}$ nitoping: $\vec{u}=\begin{pmatrix}3\\3\\7\end{pmatrix};\ \vec{v}=\begin{pmatrix}2\\6\\6\end{pmatrix};\ \vec{w}=\begin{pmatrix}5\\5\\3\end{pmatrix}$	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix}19\\47\\71\end{pmatrix}$			
	B	$\begin{pmatrix}20\\40\\71\end{pmatrix}$			

	C	$\begin{pmatrix}22\\40\\71\end{pmatrix}$			
	D	$\begin{pmatrix}20\\48\\71\end{pmatrix}$			
9.		Quyidagivektorlarningchiziqlikombinatsiyasi $5\vec{u}+7\vec{v}-2\vec{w}$ nitoping: $\vec{u}=\begin{pmatrix}3\\6\\7\end{pmatrix};\ \vec{v}=\begin{pmatrix}2\\2\\6\end{pmatrix};\ \vec{w}=\begin{pmatrix}5\\7\\3\end{pmatrix}$	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix}19\\30\\71\end{pmatrix}$			
	B	$\begin{pmatrix}19\\47\\71\end{pmatrix}$			
	C	$\begin{pmatrix}20\\48\\71\end{pmatrix}$			
	D	$\begin{pmatrix}22\\40\\71\end{pmatrix}$			
10.		Quyidagivektorlarningchiziqlikombinatsiyasi $5\vec{u}+7\vec{v}-2\vec{w}$ nitoping: $\vec{u}=\begin{pmatrix}3\\6\\3\end{pmatrix};\ \vec{v}=\begin{pmatrix}2\\2\\4\end{pmatrix};\ \vec{w}=\begin{pmatrix}5\\7\\5\end{pmatrix}$	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix}19\\30\\33\end{pmatrix}$			

	B	$\begin{pmatrix}19\\20\\33\end{pmatrix}$			
	C	$\begin{pmatrix}20\\48\\71\end{pmatrix}$			
	D	$\begin{pmatrix}22\\40\\71\end{pmatrix}$			
11.		Bizga R^3 fazodanolingan $\vec{v}=(1,1,0)$ va $\vec{w}=(0,1,1)$ vektorlarberilganbo‘lsin (ikkinchikomponentasibirinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix}\lambda\\ \lambda+\mu\\ \mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(2;3;4)$			
	B	$\left\{\begin{pmatrix}\lambda\\ 2\lambda\\ \mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(2;3;1)$			
	C	$\left\{\begin{pmatrix}\lambda\\ \lambda\mu\\ \mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(2;6;4)$			
	D	$\left\{\begin{pmatrix}\lambda\\ 3\mu\\ \mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(-1;3;4)$			
12.		Bizga R^3 fazodanolingan $\vec{v}=(2,2,0)$ va $\vec{w}=(0,2,2)$	содда	2	LO1, T2.2, T5.1, T5.2, T5.3

		vektorlarberilganbo‘lsin(ikkinchikomponentasibirinchivauchinchikomponentalariningyigindisidanibor at). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang			
	A	$\left\{\begin{pmatrix} 2\lambda \\ 2(\lambda+\mu) \\ 2\mu \end{pmatrix}; \lambda,\mu \in R\right\}\ \vec{a}=(2;3;4)$			
	B	$\left\{\begin{pmatrix} \lambda \\ 2\lambda \\ \mu \end{pmatrix}; \lambda,\mu \in R\right\}\ \vec{a}=(4;6;2)$			
	C	$\left\{\begin{pmatrix} \lambda \\ \lambda\mu \\ \mu \end{pmatrix}; \lambda,\mu \in R\right\}\ \vec{a}=(2;6;4)$			
	D	$\left\{\begin{pmatrix} \lambda \\ 3\mu \\ \mu \end{pmatrix}; \lambda,\mu \in R\right\}\ \vec{a}=(-2;2;4)$			
13.		Bizga R^3 fazodanolingan $\vec{v}=(3,3,0)$ va $\vec{w}=(0,3,3)$ vektorlarberilganbo‘lsin (ikkinchikomponentasibirinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix} 3\lambda \\ 3(\lambda+\mu) \\ 3\mu \end{pmatrix}; \lambda,\mu \in R\right\}$ $\vec{a}=(3;9;12)$			

	B	$\left\{\begin{pmatrix}\lambda\\3\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(6;9;3)$			
	C	$\left\{\begin{pmatrix}\lambda\\3\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(9;15;6)$			
	D	$\left\{\begin{pmatrix}3\lambda\\3\mu\\3\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(-3;9;12)$			
14.		Bizga R^3 fazodanolingan $\vec{v}=(1,0,1)$ va $\vec{w}=(1,1,0)$ vektorlarberilganbo‘lsin (birinchikomponentasiikkinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix}\lambda+\mu\\\mu\\\lambda\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			
	B	$\left\{\begin{pmatrix}\lambda\\3\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(9;6;3)$			
	C	$\left\{\begin{pmatrix}\lambda\\3\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(15;9;6)$			
	D	$\left\{\begin{pmatrix}3\lambda\\3\mu\\3\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(9;-3;12)$			
15.		Bizga R^3 fazodanolingan $\vec{v}=(2,0,2)$ va $\vec{w}=(2,2,0)$ vektorlarberilganbo‘lsin	содда	2	LO1, T2.2, T5.1, T5.2, T5.3

		(birinchikomponentasiikkinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.			
	A	$\left\{\begin{pmatrix}2(\lambda+\mu)\\2\mu\\2\lambda\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			
	B	$\left\{\begin{pmatrix}\lambda\\3\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(6;4;2)$			
	C	$\left\{\begin{pmatrix}\lambda\\3\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(14;8;6)$			
	D	$\left\{\begin{pmatrix}3\lambda\\3\mu\\3\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(20;8;12)$			
16.		Bizga R^3 fazodanolingan $\vec{v}=(3,0,3)$ va $\vec{w}=(3,3,0)$ vektorlarberilganbo‘lsin (birinchikomponentasiikkinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix}3(\lambda+\mu)\\3\mu\\3\lambda\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			

	B	$\left\{\begin{pmatrix}\lambda\\3\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(6;4;2)$			
	C	$\left\{\begin{pmatrix}\lambda\\3\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(14;8;6)$			
	D	$\left\{\begin{pmatrix}3\lambda\\3\mu\\3\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(20;8;12)$			
17.		Bizga R^3 fazodanolingan $\vec{v}=(4,0,4)$ va $\vec{w}=(4,4,0)$ vektorlarberilganbo‘lsin (birinchikomponentasiikkinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix}4(\lambda+\mu)\\4\mu\\4\lambda\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			
	B	$\left\{\begin{pmatrix}\lambda\\4\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(6;4;2)$			
	C	$\left\{\begin{pmatrix}\lambda\\4\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(14;8;6)$			
	D	$\left\{\begin{pmatrix}4\lambda\\4\mu\\4\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(20;8;12)$			
18.		Bizga R^3 fazodanolingan $\vec{v}=(5,0,5)$ va $\vec{w}=(5,5,0)$ vektorlarberilganbo‘lsin	содда	2	LO1, T2.2, T5.1, T5.2, T5.3

		(birinchikomponentasiikkinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.			
	A	$\left\{\begin{pmatrix}5(\lambda+\mu)\\5\mu\\5\lambda\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			
	B	$\left\{\begin{pmatrix}\lambda\\5\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(6;4;2)$			
	C	$\left\{\begin{pmatrix}\lambda\\5\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(14;8;6)$			
	D	$\left\{\begin{pmatrix}5\lambda\\5\mu\\5\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(20;8;12)$			
19.		Bizga R^3 fazodanolingan $\vec{v}=(5,5,0)$ va $\vec{w}=(0,5,5)$ vektorlarberilganbo‘lsin (ikkinchikomponentasibirinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix}5\lambda\\5(\lambda+\mu)\\5\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			

	B	$\left\{\begin{pmatrix}\lambda\\5\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(6;9;3)$			
	C	$\left\{\begin{pmatrix}\lambda\\5\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(9;15;6)$			
	D	$\left\{\begin{pmatrix}5\lambda\\5\mu\\5\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(-3;9;12)$			
20.		Bizga R^3 fazodanolingan $\vec{v}=(6,6,0)$ *va* $\vec{w}=(0,6,6)$ vektorlarberilganbo‘lsin (ikkinchikomponentasibirinchivauchinchikomponentalariningyigindisidaniborat). Bu vektorlardanqurilganvektorlartoplamini toping. R^3 danbuvektorlartoplamidayotmaydiganbirortavektornianiqlang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\left\{\begin{pmatrix}6\lambda\\6(\lambda+\mu)\\6\mu\end{pmatrix};\lambda,\mu\in R\right\}$ $\vec{a}=(3;9;12)$			
	B	$\left\{\begin{pmatrix}\lambda\\6\lambda\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(6;9;3)$			
	C	$\left\{\begin{pmatrix}\lambda\\6\lambda\mu\\\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(9;15;6)$			
	D	$\left\{\begin{pmatrix}6\lambda\\6\mu\\6\mu\end{pmatrix};\lambda,\mu\in R\right\}\ \vec{a}=(-3;9;12)$			
21.		Agar $A(2;0;4)$, $B(5;2;4)$, $C(-2;6;5)$, $D(-5;6;3)$ nuqtalarberilgan bo‘lsa, $\vec{a}=\overrightarrow{AB}+\overrightarrow{CD}$ vektorni toping	содда	1	LO1, T2.2, T5.1, T5.2, T5.3

	A	$\vec{a}=(0;2;-2)$			
	B	$\vec{a}=(0;2;2)$			
	C	$\vec{a}=(1;2;-2)$			
	D	$\vec{a}=(2;2;2)$			
22.		Agar $A(2;0;4)$, $B(6;3;5)$, $C(2;4;5)$, $D(-5;6;3)$ nuqtalarberilgan bo‘lsa, $\vec{a}=\overrightarrow{AB}+\overrightarrow{CD}$ vektorni toping	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\vec{a}=(-3;5;-1)$			
	B	$\vec{a}=(0;2;-2)$			
	C	$\vec{a}=(2;2;2)$			
	D	$\vec{a}=(3;5;1)$			
23.		Agar $A(1;1;2)$, $B(6;3;5)$, $C(2;4;5)$, $D(8;6;7)$ nuqtalarberilgan bo‘lsa, $\vec{a}=\overrightarrow{AB}+\overrightarrow{CD}$ vektorni toping	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\vec{a}=(11;4;5)$			
	B	$\vec{a}=(12;2;-2)$			
	C	$\vec{a}=(2;12;2)$			
	D	$\vec{a}=(13;5;11)$			
24.		Agar $A(1;1;2)$, $B(6;5;5)$, $C(2;3;1)$, $D(7;6;7)$ nuqtalarberilgan bo‘lsa, $\vec{a}=\overrightarrow{AB}+\overrightarrow{CD}$ vektorni toping	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\vec{a}=(10;7;9)$			
	B	$\vec{a}=(10;2;-2)$			
	C	$\vec{a}=(2;12;2)$			
	D	$\vec{a}=(13;5;11)$			
25.		Agar $A(3;1;2)$, $B(7;3;5)$, $C(2;1;4)$, $D(9;7;5)$	содда	1	LO1, T2.2, T5.1, T5.2, T5.3

		nuqtalarberilgan bo‘lsa, $\vec{a}=\overrightarrow{AB}+\overrightarrow{CD}$ vektorni toping			
	A	$\vec{a}=(11;8;4)$			
	B	$\vec{a}=(10;7;9)$			
	C	$\vec{a}=(12;2;-2)$			
	D	$\vec{a}=(13;5;11)$			
26.		Agar $A(1;2;2)$, $B(9;6;5)$, $C(3;1;4)$, $D(8;7;5)$ nuqtalarberilgan bo‘lsa, $\vec{a}=\overrightarrow{AB}+\overrightarrow{CD}$ vektorni toping.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\vec{a}=(13;10;4)$			
	B	$\vec{a}=(11;8;4)$			
	C	$\vec{a}=(10;7;9)$			
	D	$\vec{a}=(12;2;-2)$			
27.		$\vec{a}$ va $\vec{b}$ vektorlarberilgan : $\vec{a}=8\vec{i}+3\vec{i}+3\vec{k}$; $\vec{b}=5\vec{i}-3\vec{j}+3\vec{k}$ Bu vektorlarningskalyarkopaytmasini toping.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	40			
	B	29			
	C	28			
	D	25			
28.		$\vec{a}$ va $\vec{b}$ vektorlarberilgan : $\vec{a}=7\vec{i}+2\vec{i}+3\vec{k}$; $\vec{b}=2\vec{i}-2\vec{j}+3\vec{k}$ Bu vektorlarningskalyarkopaytmasini toping.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	19			
	B	40			
	C	29			
	D	28			
29.		$\vec{a}$ va $\vec{b}$ vektorlarberilgan :	содда	1	LO1, T2.2, T5.1, T5.2, T5.3

		$\vec{a}=3\vec{i}+8\vec{i}+\vec{k};$ $\vec{b}=6\vec{i}-3\vec{j}+3\vec{k}$ Bu vektorlarningskalyarkopaytmasini toping.			
	A	–3			
	B	19			
	C	40			
	D	29			
30.		$\vec{a}$ va $\vec{b}$ vektorlarberilgan : $\vec{a}=3\vec{i}+6\vec{i}+2\vec{k};$ $\vec{b}=6\vec{i}-3\vec{j}+3\vec{k}$ Bu vektorlarningskalyarkopaytmasini toping.	содда	1	LO1, T2.2, T5.1, T5.2, T5.3
	A	6			
	B	–3			
	C	19			
	D	40			
31.		Ikki $\vec{a}$ va $\vec{b}$ vektorlarorasidagiburchak $\varphi=\pi/4$ gatengva $\lvert\vec{a}\rvert=\sqrt{2}$, $\lvert\vec{b}\rvert=3$ ekanligima'lumbo'lsa $\vec{c}=2\vec{a}+3\vec{b}$ vektorninguzunliginihisoblang.	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$5\sqrt{5}$			
	B	19			
	C	40			
	D	29			
32.		Ikki $\vec{a}$ va $\vec{b}$ vektorlarorasidagiburchak $\varphi=\pi/6$ gatengva $\lvert\vec{a}\rvert=\sqrt{3}$, $\lvert\vec{b}\rvert=3$ ekanligima'lumbo'lsa $\vec{c}=2\vec{a}+3\vec{b}$ vektorninguzunliginihisoblang.	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\sqrt{147}$			
	B	$\sqrt{127}$			
	C	$2\sqrt{147}$			

	D	$5\sqrt{5}$			
33.		Ikki $\vec{a}$ va $\vec{b}$ vektorlarorasidagiburchak $\varphi = \pi/3$ gatengva $\lvert\vec{a}\rvert = 2, \lvert\vec{b}\rvert = 3$ ekanligima'lumbo'lsa $\vec{c} = 2\vec{a} + 3\vec{b}$ vektorninguzunliginihisoblang.	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\sqrt{133}$			
	B	$\sqrt{147}$			
	C	$\sqrt{127}$			
	D	$2\sqrt{147}$			
34.		Ikki $\vec{a}$ va $\vec{b}$ vektorlarorasidagiburchak $\varphi = \pi/3$ gatengva $\lvert\vec{a}\rvert = 4, \lvert\vec{b}\rvert = 2$ ekanligima'lumbo'lsa $\vec{c} = 2\vec{a} + 3\vec{b}$ vektorninguzunliginihisoblang.	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$2\sqrt{37}$			
	B	$\sqrt{133}$			
	C	$\sqrt{147}$			
	D	$\sqrt{127}$			
35.		Ikki $\vec{a}$ va $\vec{b}$ vektorlarorasidagiburchak $\varphi = \pi/4$ gatengva $\lvert\vec{a}\rvert = 2, \lvert\vec{b}\rvert = 2\sqrt{2}$ ekanligima'lumbo'lsa $\vec{c} = 2\vec{a} + 3\vec{b}$ vektorninguzunliginihisoblang.	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$2\sqrt{34}$			
	B	$2\sqrt{37}$			
	C	$\sqrt{133}$			
	D	$\sqrt{147}$			
36.		Agar $\lvert\vec{a}\rvert = 7\sqrt{2}$, $\lvert\vec{b}\rvert = 4$ va $(\vec{a}, \hat{\vec{b}}) = 45^0$ bo'lsa, $3\vec{a} + \alpha\vec{b}$ va	содда	3	LO1, T2.2, T5.1, T5.2, T5.3

		$\vec{a}-2\vec{b}$ vektorlar α ningqandayqiymatlaridao‘zaroper pendikulyarbo‘ladi?			
	A	$31,5$			
	B	19			
	C	40			
	D	29			
37.		Agar $\lvert\vec{a}\rvert=2,\ \lvert\vec{b}\rvert=4$ va $\left(\vec{a},\wedge\vec{b}\right)=60^0$ bo‘lsa, $3\vec{a}+\alpha\vec{b}$ va $\vec{a}-2\vec{b}$ vektorlar α ningqandayqiymatlaridao‘zaroper pendikulyarbo‘ladi?	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$-\frac{3}{7}$			
	B	$31,5$			
	C	19			
	D	40			
38.		Agar $\lvert\vec{a}\rvert=2,\ \lvert\vec{b}\rvert=2\sqrt{3}$ va $\left(\vec{a},\wedge\vec{b}\right)=30^0$ bo‘lsa, $3\vec{a}+\alpha\vec{b}$ va $\vec{a}-2\vec{b}$ vektorlar α ningqandayqiymatlaridao‘zaroper pendikulyarbo‘ladi	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	$-1\frac{1}{3}$			
	B	$-\frac{3}{7}$			
	C	$31,5$			
	D	19			
39.		Agar $\lvert\vec{a}\rvert=3,\ \lvert\vec{b}\rvert=2\sqrt{3}$ va $\left(\vec{a},\wedge\vec{b}\right)=30^0$ bo‘lsa, $3\vec{a}+\alpha\vec{b}$ va $\vec{a}-2\vec{b}$ vektorlar α ningqandayqiymatlaridao‘zaroper pendikulyarbo‘ladi?	содда	3	LO1, T2.2, T5.1, T5.2, T5.3

	A	$-1\frac{4}{5}$			
	B	$-\frac{3}{7}$			
	C	$31,5$			
	D	19			
40.		Agar $\left\|\vec{a}\right\|=\sqrt{2}$, $\left\|\vec{b}\right\|=2$ va $\left(\vec{a},\hat{\vec{b}}\right)=45^0$ bo‘lsa, $3\vec{a}+\alpha\vec{b}$ va $\vec{a}-2\vec{b}$ vektorlar α ningqandayqiymatlaridao‘zaroperpendikulyarbo‘ladi?	содда	3	LO1, T2.2, T5.1, T5.2, T5.3
	A	-1			
	B	$-1\frac{4}{5}$			
	C	$-\frac{3}{7}$			
	D	$31,5$			
41.		Uchlari $A(-2;3;1)$, $B(-2;-1;4)$ va $C(-2;-4;0)$ nuqtalardabo‘lganuchburchakberilgan. Bu uchburchakning C ichkiburchaginihisoblang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{\pi}{4}$			
	B	$\frac{2\pi}{3}$			
	C	$\frac{\pi}{3}$			
	D	$\frac{\pi}{6}$			
42.		Uchlari $A(3;11;3)$, $B(3;7;6)$ va $C(3;4;2)$ nuqtalardabo‘lganuchburchakberilgan. Bu uchburchakning C ichkiburchaginihisoblang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{\pi}{4}$			

	B	$\frac{3\pi}{4}$			
	C	$\frac{\pi}{3}$			
	D	$\frac{\pi}{6}$			
43.		Uchlari $A(5;10;2)$, $B(5;6;5)$ va $C(5;3;1)$ nuqtalardabo‘lganuchburchakberilgan. Bu uchburchakning C ichkiburchaginihisoblang	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{\pi}{4}$			
	B	$\frac{3\pi}{2}$			
	C	$\frac{\pi}{3}$			
	D	$\frac{5\pi}{6}$			
44.		Uchlari $A(2;8;2)$, $B(2;4;5)$ va $C(2;1;1)$ nuqtalardabo‘lganuchburchakberilgan. Bu uchburchakning C ichkiburchaginihisoblang.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{\pi}{4}$			
	B	$\frac{2\pi}{7}$			
	C	$\frac{\pi}{3}$			
	D	$\frac{\pi}{6}$			
45.		Дан треугольник с вершинами $A(3;9;4)$, $B(3;5;7)$ и $C(3;2;3)$. Найти внутренная угол при вершине C.	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{\pi}{4}$			
	B	$\frac{\pi}{8}$			

	C	$\frac{\pi}{3}$			
	D	$\frac{\pi}{6}$			
46.		$A(1,-2,3),\ B(3,4,-6), C(-3,1,3)$ нуқталар berilgan bo‘lsa, $\overrightarrow{AB}$ va $\overrightarrow{AC}$ vektorlar orasidagi burchak kosinusini toping	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{2}{11}$			
	B	$\frac{4}{11}$			
	C	$\frac{6}{11}$			
	D	$\frac{8}{11}$			
47.		$A(2,3,4),\ B(2,4,6), C(-3,2,3)$ berilgan bo‘lsa, $\overrightarrow{AB}$ va $\overrightarrow{AC}$ vektorlar orasidagi burchak kosinusini toping	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$-\frac{1}{\sqrt{15}}$			
	B	$-\frac{2}{\sqrt{15}}$			
	C	$\frac{3}{11}$			
	D	$\frac{8}{11}$			
48.		$A(3,2,4),\ B(2,5,6), C(6,7,8)$ berilgan bo‘lsa, $\overrightarrow{AB}$ va $\overrightarrow{AC}$ vektorlar orasidagi burchak kosinusini toping	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{2}{\sqrt{7}}$			

	B	$-\frac{1}{\sqrt{15}}$			
	C	$-\frac{2}{\sqrt{15}}$			
	D	$\frac{3}{11}$			
49.		$A(1,2,4),\ B(2,5,6),C(3,7,5)$ berilgan bo‘lsa, $\overrightarrow{AB}$ va $\overrightarrow{AC}$ vektorlar orasidagi burchak kosinusini toping	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{19}{2\sqrt{105}}$			
	B	$\frac{2}{\sqrt{7}}$			
	C	$-\frac{1}{\sqrt{15}}$			
	D	$-\frac{2}{\sqrt{15}}$			
50.		$A(1,2,4),\ B(2,2,6),C(3,3,5)$ berilgan bo‘lsa, $\overrightarrow{AB}$ va $\overrightarrow{AC}$ vektorlar orasidagi burchak kosinusini toping	содда	2	LO1, T2.2, T5.1, T5.2, T5.3
	A	$\frac{4}{\sqrt{30}}$			
	B	$\frac{8}{\sqrt{105}}$			
	C	$\frac{2}{\sqrt{7}}$			
	D	$-\frac{1}{\sqrt{15}}$			

2-mavzu

№	Жавобвариантлари	Савол	Қийинликдаражаси	Саволнингшаблондагирақами	Текширилаётгантаълимнатижалари
1.		Quyidagimatritsaviytenglikdan x va y noma'lumlarningqiymatlarinitoping: $\begin{pmatrix} 3 & 2 \\ x+y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 2 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(0;2)			
	B	(2;2)			
	C	(3;2)			
	D	(2;0)			
2.		Quyidagimatritsaviytenglikdan x va y noma'lumlarningqiymatlarinitoping: $\begin{pmatrix} 3 & 2-y \\ x+y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 2 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(1,1)			
	B	(3;2)			
	C	(2;3)			
	D	(2;4)			
3.		Quyidagimatritsaviytenglikdan x va y noma'lumlarningqiymatlarinitoping: $\begin{pmatrix} 3 & 4-y \\ x+y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 3 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(1,2)			
	B	(1,1)			
	C	(3;2)			
	D	(2;3)			
4.		Quyidagimatritsaviytenglikdan x va y	содда	1	LO2,

		noma’lumlarningqiymatlarinitopin g: $\begin{pmatrix} 3 & 4-y \\ x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 3 & 1 \end{pmatrix}$.			
	A	(5,2)			
	B	(1,2)			
	C	(1,1)			
	D	(3;2)			
5.		Quyidagimatritsaviytenglikdan x va y noma’lumlarningqiymatlarinitopin g: $\begin{pmatrix} 3 & 4-y \\ x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 2 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(4,2)			
	B	(1,1)			
	C	(3;2)			
	D	(5,2)			
6.		Quyidagimatritsaviytenglikdan x va y noma’lumlarningqiymatlarinitopin g: $\begin{pmatrix} 3 & 6-y \\ x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 2 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(5,3)			
	B	(1,2)			
	C	(1,1)			
	D	(3;2)			
7.		Quyidagimatritsaviytenglikdan x va y noma’lumlarningqiymatlarinitopin g: $\begin{pmatrix} 3 & 8-y \\ 2x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 2 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(3,4)			
	B	(5,3)			
	C	(1,2)			
	D	(1,1)			

8.		Quyidagimatritsaviytenglikdan x va y noma'lumlarningqiymatlarinitoping: $\begin{pmatrix} 3 & 9-2y \\ 2x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 5 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(4,3)			
	B	(5,3)			
	C	(1,2)			
	D	(1,1)			
9.		Quyidagimatritsaviytenglikdan x va y noma'lumlarningqiymatlarinitoping: $\begin{pmatrix} 3 & 12-3y \\ 3x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 12 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(5,3)			
	B	(1,2)			
	C	(1,1)			
	D	(4,3)			
10.		Quyidagimatritsaviytenglikdan x va y noma'lumlarningqiymatlarinitoping: $\begin{pmatrix} 3 & 12-3y \\ 2x-y & 1 \end{pmatrix}=\begin{pmatrix} 3 & y \\ 7 & 1 \end{pmatrix}$.	содда	1	LO2,
	A	(5,3)			
	B	(1,2)			
	C	(1,1)			
	D	(4,3)			
11.		$A=\begin{pmatrix} 3 & 1 \\ 2 & 1 \end{pmatrix}$ va $B=\begin{pmatrix} 4 & 1 \\ 2 & 2 \end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 18 & 5 \\ 10 & 8 \end{pmatrix}$			

	B	$\begin{pmatrix}12 & 5\\16 & 8\end{pmatrix}$			
	C	$\begin{pmatrix}18 & 8\\10 & 8\end{pmatrix}$			
	D	$\begin{pmatrix}18 & 12\\10 & 8\end{pmatrix}$			
12.		$A=\begin{pmatrix}4 & 1\\2 & 2\end{pmatrix}$ *va* $B=\begin{pmatrix}3 & 1\\2 & 1\end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix}17 & 5\\10 & 7\end{pmatrix}$			
	B	$\begin{pmatrix}18 & 5\\10 & 8\end{pmatrix}$			
	C	$\begin{pmatrix}12 & 5\\16 & 8\end{pmatrix}$			
	D	$\begin{pmatrix}18 & 8\\10 & 8\end{pmatrix}$			
13.		$A=\begin{pmatrix}5 & 1\\3 & 2\end{pmatrix}$ *va* $B=\begin{pmatrix}3 & 1\\2 & 4\end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix}19 & 5\\12 & 16\end{pmatrix}$			
	B	$\begin{pmatrix}17 & 5\\10 & 7\end{pmatrix}$			
	C	$\begin{pmatrix}18 & 5\\10 & 8\end{pmatrix}$			
	D	$\begin{pmatrix}12 & 5\\16 & 8\end{pmatrix}$			
14.		$A=\begin{pmatrix}3 & 2\\3 & 2\end{pmatrix}$ *va* $B=\begin{pmatrix}4 & 1\\2 & 4\end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,

	A	$\begin{pmatrix} 18 & 7 \\ 12 & 16 \end{pmatrix}$			
	B	$\begin{pmatrix} 19 & 5 \\ 12 & 16 \end{pmatrix}$			
	C	$\begin{pmatrix} 17 & 5 \\ 10 & 7 \end{pmatrix}$			
	D	$\begin{pmatrix} 18 & 5 \\ 10 & 8 \end{pmatrix}$			
15.		$A=\begin{pmatrix} 3 & 2 \\ 4 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ 2 & 4 \end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 12 & 7 \\ 14 & 16 \end{pmatrix}$			
	B	$\begin{pmatrix} 18 & 7 \\ 12 & 16 \end{pmatrix}$			
	C	$\begin{pmatrix} 19 & 5 \\ 12 & 16 \end{pmatrix}$			
	D	$\begin{pmatrix} 17 & 5 \\ 10 & 7 \end{pmatrix}$			
16.		$A=\begin{pmatrix} 3 & 3 \\ 4 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 2 \\ 2 & 4 \end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 12 & 12 \\ 14 & 16 \end{pmatrix}$			
	B	$\begin{pmatrix} 12 & 7 \\ 14 & 16 \end{pmatrix}$			
	C	$\begin{pmatrix} 18 & 7 \\ 12 & 16 \end{pmatrix}$			
	D	$\begin{pmatrix} 19 & 5 \\ 12 & 16 \end{pmatrix}$			
17.		$A=\begin{pmatrix} 5 & 3 \\ 4 & 3 \end{pmatrix}$ va $B=\begin{pmatrix} 7 & 2 \\ 2 & 2 \end{pmatrix}$	содда	1	LO2,

		matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.			
	A	$\begin{pmatrix} 31 & 12 \\ 14 & 12 \end{pmatrix}$			
	B	$\begin{pmatrix} 12 & 7 \\ 14 & 16 \end{pmatrix}$			
	C	$\begin{pmatrix} 18 & 7 \\ 12 & 16 \end{pmatrix}$			
	D	$\begin{pmatrix} 19 & 5 \\ 12 & 16 \end{pmatrix}$			
18.		$A=\begin{pmatrix} 5 & 5 \\ 3 & 3 \end{pmatrix}$ *va* $B=\begin{pmatrix} 7 & 3 \\ 5 & 2 \end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 31 & 19 \\ 21 & 12 \end{pmatrix}$			
	B	$\begin{pmatrix} 31 & 12 \\ 14 & 12 \end{pmatrix}$			
	C	$\begin{pmatrix} 12 & 7 \\ 14 & 16 \end{pmatrix}$			
	D	$\begin{pmatrix} 18 & 7 \\ 12 & 16 \end{pmatrix}$			
19.		$A=\begin{pmatrix} 6 & 7 \\ 3 & 3 \end{pmatrix}$ *va* $B=\begin{pmatrix} 4 & 4 \\ 5 & 2 \end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 24 & 26 \\ 21 & 12 \end{pmatrix}$			
	B	$\begin{pmatrix} 31 & 19 \\ 21 & 12 \end{pmatrix}$			
	C	$\begin{pmatrix} 31 & 12 \\ 14 & 12 \end{pmatrix}$			
	D	$\begin{pmatrix} 12 & 7 \\ 14 & 16 \end{pmatrix}$			

20.		$A=\begin{pmatrix}5 & 7\\ 3 & 6\end{pmatrix}$ va $B=\begin{pmatrix}7 & 4\\ 5 & 5\end{pmatrix}$ matritsalarning $2A+3B$ chiziqlikombinatsiyasini toping.	содда	1	LO2,
	A	$\begin{pmatrix}31 & 26\\ 21 & 27\end{pmatrix}$			
	B	$\begin{pmatrix}24 & 26\\ 21 & 12\end{pmatrix}$			
	C	$\begin{pmatrix}31 & 19\\ 21 & 12\end{pmatrix}$			
	D	$\begin{pmatrix}31 & 12\\ 14 & 12\end{pmatrix}$			
21.		$A=\begin{pmatrix}5 & 7\\ 3 & 6\end{pmatrix}$ va $B=\begin{pmatrix}7 & 4\\ 5 & 5\end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix}70 & 55\\ 51 & 42\end{pmatrix}$			
	B	$\begin{pmatrix}31 & 26\\ 21 & 27\end{pmatrix}$			
	C	$\begin{pmatrix}24 & 26\\ 21 & 12\end{pmatrix}$			
	D	$\begin{pmatrix}31 & 19\\ 21 & 12\end{pmatrix}$			
22.		$A=\begin{pmatrix}3 & 1\\ 2 & 1\end{pmatrix}$ va $B=\begin{pmatrix}4 & 1\\ 2 & 2\end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix}14 & 5\\ 10 & 4\end{pmatrix}$			
	B	$\begin{pmatrix}70 & 55\\ 51 & 42\end{pmatrix}$			
	C	$\begin{pmatrix}31 & 26\\ 21 & 27\end{pmatrix}$			

	D	$\begin{pmatrix} 24 & 26 \\ 21 & 12 \end{pmatrix}$			
23.		$A=\begin{pmatrix} 4 & 1 \\ 2 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 3 & 1 \\ 2 & 1 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 14 & 5 \\ 10 & 4 \end{pmatrix}$			
	B	$\begin{pmatrix} 14 & 5 \\ 6 & 4 \end{pmatrix}$			
	C	$\begin{pmatrix} 70 & 55 \\ 51 & 42 \end{pmatrix}$			
	D	$\begin{pmatrix} 31 & 26 \\ 21 & 27 \end{pmatrix}$			
24.		$A=\begin{pmatrix} 5 & 1 \\ 3 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 3 & 1 \\ 2 & 4 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 17 & 9 \\ 13 & 11 \end{pmatrix}$			
	B	$\begin{pmatrix} 14 & 5 \\ 6 & 4 \end{pmatrix}$			
	C	$\begin{pmatrix} 70 & 55 \\ 51 & 42 \end{pmatrix}$			
	D	$\begin{pmatrix} 31 & 26 \\ 21 & 27 \end{pmatrix}$			
25.		$A=\begin{pmatrix} 3 & 2 \\ 3 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 4 & 1 \\ 2 & 4 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 16 & 11 \\ 16 & 11 \end{pmatrix}$			
	B	$\begin{pmatrix} 17 & 9 \\ 13 & 11 \end{pmatrix}$			

	C	$\begin{pmatrix} 14 & 5 \\ 6 & 4 \end{pmatrix}$			
	D	$\begin{pmatrix} 70 & 55 \\ 51 & 42 \end{pmatrix}$			
26.		$A=\begin{pmatrix} 3 & 2 \\ 4 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ 2 & 4 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 10 & 11 \\ 12 & 12 \end{pmatrix}$			
	B	$\begin{pmatrix} 16 & 11 \\ 16 & 11 \end{pmatrix}$			
	C	$\begin{pmatrix} 17 & 9 \\ 13 & 11 \end{pmatrix}$			
	D	$\begin{pmatrix} 14 & 5 \\ 6 & 4 \end{pmatrix}$			
27.		$A=\begin{pmatrix} 3 & 3 \\ 4 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 2 \\ 2 & 4 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 12 & 18 \\ 12 & 16 \end{pmatrix}$			
	B	$\begin{pmatrix} 10 & 11 \\ 12 & 12 \end{pmatrix}$			
	C	$\begin{pmatrix} 16 & 11 \\ 16 & 11 \end{pmatrix}$			
	D	$\begin{pmatrix} 17 & 9 \\ 13 & 11 \end{pmatrix}$			
28.		$A=\begin{pmatrix} 5 & 3 \\ 4 & 3 \end{pmatrix}$ va $B=\begin{pmatrix} 7 & 2 \\ 2 & 2 \end{pmatrix}$ matritsalarningko‘paytmasini toping..	содда	1	LO2,
	A	$\begin{pmatrix} 41 & 16 \\ 34 & 14 \end{pmatrix}$			

	B	$\begin{pmatrix} 12 & 18 \\ 12 & 16 \end{pmatrix}$			
	C	$\begin{pmatrix} 10 & 11 \\ 12 & 12 \end{pmatrix}$			
	D	$\begin{pmatrix} 16 & 11 \\ 16 & 11 \end{pmatrix}$			
29.		$A=\begin{pmatrix} 5 & 5 \\ 3 & 3 \end{pmatrix}$ va $B=\begin{pmatrix} 7 & 3 \\ 5 & 2 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 60 & 25 \\ 36 & 15 \end{pmatrix}$			
	B	$\begin{pmatrix} 41 & 16 \\ 34 & 14 \end{pmatrix}$			
	C	$\begin{pmatrix} 12 & 18 \\ 12 & 16 \end{pmatrix}$			
	D	$\begin{pmatrix} 10 & 11 \\ 12 & 12 \end{pmatrix}$			
30.		$A=\begin{pmatrix} 6 & 7 \\ 3 & 3 \end{pmatrix}$ va $B=\begin{pmatrix} 4 & 4 \\ 5 & 2 \end{pmatrix}$ matritsalarningko‘paytmasini toping.	содда	1	LO2,
	A	$\begin{pmatrix} 59 & 28 \\ 27 & 18 \end{pmatrix}$			
	B	$\begin{pmatrix} 60 & 25 \\ 36 & 15 \end{pmatrix}$			
	C	$\begin{pmatrix} 41 & 16 \\ 34 & 14 \end{pmatrix}$			
	D	$\begin{pmatrix} 12 & 18 \\ 12 & 16 \end{pmatrix}$			
31.		$A=\begin{pmatrix} 1 & 2 & 3 \\ 2 & 5 & 6 \\ 4 & 5 & 7 \end{pmatrix}$ matritsanielementarolmashtirishlaryordamidazinapoyako‘rinishgake	содда	2	LO2,

		ltiring.			
	A	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 1 & 0\\ 0 & 0 & -5\end{pmatrix}$			
	B	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 2 & 0\\ 0 & 0 & 5\end{pmatrix}$			
	C	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 3 & 0\\ 0 & 0 & 4\end{pmatrix}$			
	D	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 8 & 0\\ 0 & 0 & 5\end{pmatrix}$			
32.		$A=\begin{pmatrix}1 & 2 & 3\\ 3 & 5 & 6\\ 3 & 2 & 7\end{pmatrix}$ matritsanielementarolmashtirishlaryordamidazinapoyako‘rinishgakeltiring.	содда	2	LO2,
	A	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & -1 & -3\\ 0 & 0 & 10\end{pmatrix}$			
	B	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 2 & 0\\ 0 & 0 & 5\end{pmatrix}$			
	C	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 3 & 0\\ 0 & 0 & 4\end{pmatrix}$			
	D	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 8 & 0\\ 0 & 0 & 5\end{pmatrix}$			
33.		$A=\begin{pmatrix}1 & 2 & 3\\ 6 & 11 & 6\\ 3 & 7 & 7\end{pmatrix}$ matritsanielementar	содда	2	LO2,

		olmashtirishlaryordamidazinapoya ko‘rinishgakeltiring.			
	A	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & -1 & -12\\ 0 & 0 & -14\end{pmatrix}$			
	B	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 2 & 0\\ 0 & 0 & 5\end{pmatrix}$			
	C	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 3 & 0\\ 0 & 0 & 4\end{pmatrix}$			
	D	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 8 & 0\\ 0 & 0 & 5\end{pmatrix}$			
34.		$A=\begin{pmatrix}1 & 2 & 3\\ 5 & 11 & 6\\ 3 & 9 & 7\end{pmatrix}$ matritsanielementar olmashtirishlaryordamidazinapoya ko‘rinishgakeltiring.	содда	2	LO2,
	A	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 1 & -9\\ 0 & 0 & 25\end{pmatrix}$			
	B	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & -1 & -12\\ 0 & 0 & -14\end{pmatrix}$			
	C	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 2 & 0\\ 0 & 0 & 5\end{pmatrix}$			
	D	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 3 & 0\\ 0 & 0 & 4\end{pmatrix}$			
35.		$A=\begin{pmatrix}1 & 2 & 3\\ 3 & 1 & 6\\ 5 & 15 & 8\end{pmatrix}$	содда	2	LO2,

		matritsanielementar olmashtirishlaryordamidazinapoya ko‘rinishgakeltiring.			
	A	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & -5 & -3\\ 0 & 0 & -4\end{pmatrix}$			
	B	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 1 & -9\\ 0 & 0 & 25\end{pmatrix}$			
	C	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & -1 & -12\\ 0 & 0 & -14\end{pmatrix}$			
	D	$A=\begin{pmatrix}1 & 2 & 3\\ 0 & 2 & 0\\ 0 & 0 & 5\end{pmatrix}$			
36.		$A=\begin{pmatrix}1 & 2 & 3\\ 2 & 5 & 6\end{pmatrix}$ va $B=\begin{pmatrix}2 & 1\\ -1 & 3\\ 2 & 4\end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	содда	2	LO2,
	A	$\begin{pmatrix}6 & 19\\ 11 & 41\end{pmatrix}$			
	B	$\begin{pmatrix}60 & 45\\ 16 & 48\end{pmatrix}$			
	C	$\begin{pmatrix}60 & 45\\ 76 & 48\end{pmatrix}$			
	D	$\begin{pmatrix}18 & 12\\ 10 & 8\end{pmatrix}$			
37.		$A=\begin{pmatrix}1 & 2 & 3\\ 2 & 5 & 6\end{pmatrix}$ va $B=\begin{pmatrix}1 & 1\\ -1 & 2\\ 2 & 3\end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	содда	2	LO2,
	A	$\begin{pmatrix}5 & 14\\ 9 & 30\end{pmatrix}$			

	B	$\begin{pmatrix} 6 & 19 \\ 11 & 41 \end{pmatrix}$			
	C	$\begin{pmatrix} 60 & 45 \\ 16 & 48 \end{pmatrix}$			
	D	$\begin{pmatrix} 60 & 45 \\ 76 & 48 \end{pmatrix}$			
38.		$A=\begin{pmatrix} 2 & 2 & 3 \\ 2 & -1 & 1 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ -1 & 3 \\ 2 & 4 \end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	содда	2	LO2,
	A	$\begin{pmatrix} 8 & 20 \\ 7 & 3 \end{pmatrix}$			
	B	$\begin{pmatrix} 5 & 14 \\ 9 & 30 \end{pmatrix}$			
	C	$\begin{pmatrix} 6 & 19 \\ 11 & 41 \end{pmatrix}$			
	D	$\begin{pmatrix} 60 & 45 \\ 16 & 48 \end{pmatrix}$			
39.		$A=\begin{pmatrix} 1 & 2 & 3 \\ 2 & 5 & 6 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ -1 & 3 \\ 2 & 2 \end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	содда	2	LO2,
	A	$\begin{pmatrix} 6 & 13 \\ 11 & 29 \end{pmatrix}$			
	B	$\begin{pmatrix} 8 & 20 \\ 7 & 3 \end{pmatrix}$			
	C	$\begin{pmatrix} 5 & 14 \\ 9 & 30 \end{pmatrix}$			
	D	$\begin{pmatrix} 6 & 19 \\ 11 & 41 \end{pmatrix}$			

40.		$A=\begin{pmatrix}1 & 2 & 2\\ 2 & 5 & 6\end{pmatrix}$ va $B=\begin{pmatrix}2 & 1\\ -1 & 3\\ 2 & 4\end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	sodda	2	LO2,
	A	$\begin{pmatrix}4 & 15\\ 11 & 41\end{pmatrix}$			
	B	$\begin{pmatrix}6 & 13\\ 11 & 29\end{pmatrix}$			
	C	$\begin{pmatrix}8 & 20\\ 7 & 3\end{pmatrix}$			
	D	$\begin{pmatrix}5 & 14\\ 9 & 30\end{pmatrix}$			
41.		$A=\begin{pmatrix}1 & 2 & 2\\ 2 & 5 & 6\end{pmatrix}$ va $B=\begin{pmatrix}2 & 1\\ -1 & 3\\ 3 & 4\end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	sodda	3	LO2,
	A	$\begin{pmatrix}6 & 15\\ 17 & 41\end{pmatrix}$			
	B	$\begin{pmatrix}4 & 19\\ 11 & 41\end{pmatrix}$			
	C	$\begin{pmatrix}6 & 13\\ 11 & 29\end{pmatrix}$			
	D	$\begin{pmatrix}8 & 20\\ 7 & 3\end{pmatrix}$			
42.		$A=\begin{pmatrix}3 & 1 & 2\\ 2 & 5 & 6\end{pmatrix}$ va $B=\begin{pmatrix}2 & 1\\ -1 & 3\\ 2 & 4\end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	sodda	3	LO2,
	A	$\begin{pmatrix}9 & 14\\ 11 & 41\end{pmatrix}$			
	B	$\begin{pmatrix}6 & 15\\ 11 & 41\end{pmatrix}$			

	C	$\begin{pmatrix} 4 & 19 \\ 11 & 41 \end{pmatrix}$			
	D	$\begin{pmatrix} 6 & 13 \\ 11 & 29 \end{pmatrix}$			
43.		$A=\begin{pmatrix} 1 & 2 & 2 \\ 2 & 5 & 6 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ -1 & 3 \\ 2 & 1 \end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	sodda	3	LO2,
	A	$\begin{pmatrix} 4 & 9 \\ 11 & 23 \end{pmatrix}$			
	B	$\begin{pmatrix} 9 & 14 \\ 11 & 41 \end{pmatrix}$			
	C	$\begin{pmatrix} 6 & 15 \\ 11 & 41 \end{pmatrix}$			
	D	$\begin{pmatrix} 4 & 19 \\ 11 & 41 \end{pmatrix}$			
44.		$A=\begin{pmatrix} 1 & 2 & 2 \\ 2 & 5 & 6 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ -1 & 2 \\ 2 & 1 \end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	sodda	3	LO2,
	A	$\begin{pmatrix} 4 & 7 \\ 11 & 18 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 9 \\ 11 & 23 \end{pmatrix}$			
	C	$\begin{pmatrix} 9 & 14 \\ 11 & 41 \end{pmatrix}$			
	D	$\begin{pmatrix} 6 & 15 \\ 11 & 41 \end{pmatrix}$			
45.		$A=\begin{pmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \end{pmatrix}$ va $B=\begin{pmatrix} 2 & 1 \\ -1 & 3 \\ 2 & 4 \end{pmatrix}$ matritsalarberilganbolsa, $A\cdot B$ni toping.	sodda	3	LO2,

	A	$\begin{pmatrix} 4 & 15 \\ 7 & 13 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 7 \\ 7 & 18 \end{pmatrix}$			
	C	$\begin{pmatrix} 4 & 9 \\ 11 & 23 \end{pmatrix}$			
	D	$\begin{pmatrix} 9 & 14 \\ 11 & 41 \end{pmatrix}$			
46.		Determinantnihisoblang $\begin{vmatrix} 1 & 2 & 3 \\ -2 & 1 & -3 \\ 3 & -3 & 1 \end{vmatrix}$	содда	2	LO2,
	A	-13			
	B	14			
	C	26			
	D	28			
47.		Determinantnihisoblang $\begin{vmatrix} 2 & 2 & 3 \\ -2 & 2 & -3 \\ 3 & -3 & 2 \end{vmatrix}$	содда	2	LO2,
	A	-20			
	B	20			
	C	24			
	D	34			
48.		Determinantnihisoblang $\begin{vmatrix} 2 & 2 & 1 \\ -2 & 1 & -3 \\ 1 & -3 & 2 \end{vmatrix}$	содда	2	LO2,
	A	-7			
	B	23			
	C	14			
	D	18			
49.		Determinantnihisoblang $\begin{vmatrix} 2 & 2 & 2 \\ -2 & 2 & -3 \\ 2 & -3 & 2 \end{vmatrix}$	содда	2	LO2,
	A	-10			
	B	15			
	C	-8			
	D	21			

50.		Determinantnihisoblang $\begin{vmatrix} 2 & 1 & 1 \\ -1 & 2 & -3 \\ 2 & -3 & 2 \end{vmatrix}$	содда	2	LO2,
	A	-15			
	B	24			
	C	13			
	D	18			

3-mavzu

№	Javob variant lari	Savol	Qiyinlik darajasi	Savolning shablondagi raqami	Tekshirilayotgan ta’lim natijalari
1.		Tenglamalr sistemasi berilgan. $\begin{cases} x_1+2x_2-x_3=3, \\ 2x_1-x_2+2x_3=-1, \\ x_1+3x_2-x_3=6. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-1			
	B	3			
	C	2			
	D	1			
2.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+x_2-x_3=2, \\ 2x_1+2x_2-3x_3=-3, \\ x_1+2x_2-2x_3=-5. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	-3			
	C	1			
	D	2			
3.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3=8, \\ x_1+2x_2+3x_3=10, \\ 2x_1-3x_2-4x_3=-4. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	2			
	C	1			
	D	-3			
4.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+7x_2-x_3=10, \\ x_1+2x_2+x_3=2, \\ 3x_1-5x_2+3x_3=-5. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	2			
	C	-1			
	D	-2			

5.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+3x_3=5, \\ 3x_1-2x_2+3x_3=-1, \\ 2x_1+3x_2-2x_3=8. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	2			
	C	0			
	D	-1			
6.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1-2x_2+x_3=8, \\ x_1+3x_2+x_3=-3, \\ 3x_1+2x_2-2x_3=-5. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	-2			
	C	2			
	D	-1			
7.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3=6, \\ 4x_1+5x_2+6x_3=9, \\ 7x_1+8x_2=-6. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-2			
	B	1			
	C	2			
	D	-1			
8.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+x_2+3x_3=-13, \\ x_1+2x_2-x_3=-2, \\ 3x_1+x_2-4x_3=7. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-1			
	B	-2			
	C	-3			
	D	-4			
9.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1+2x_2-3x_3=-1, \\ 2x_1+x_2+2x_3=4, \\ x_1-3x_2+x_3=9. \end{cases}$ $x_1=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	-2			

	C	1			
	D	-1			
10.		Tenglamalr sistemasi berilgan. $\begin{cases} x_1+2x_2-x_3=3, \\ 2x_1-x_2+2x_3=-1, \\ x_1+3x_2-x_3=6. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	-1			
	C	2			
	D	1			
11.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+x_2-x_3=2, \\ 2x_1+2x_2-3x_3=-3, \\ x_1+2x_2-2x_3=-5. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-3			
	B	3			
	C	1			
	D	-1			
12.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3=8, \\ x_1+2x_2+3x_3=10, \\ 2x_1-3x_2-4x_3=-4. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	3			
	C	1			
	D	-1			
13.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+7x_2-x_3=10, \\ x_1+2x_2+x_3=2, \\ 3x_1-5x_2+3x_3=-5. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	-1			
	C	2			
	D	-2			
14.		Tenglamalar sistemasi berilgan.	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3

		$\begin{cases} x_1+2x_2+3x_3=5, \\ 3x_1-2x_2+3x_3=-1, \\ 2x_1+3x_2-2x_3=8. \end{cases}$ $x_2=?$			
	A	2			
	B	1			
	C	0			
	D	-1			
15.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1-2x_2+x_3=8, \\ x_1+3x_2+x_3=-3, \\ 3x_1+2x_2-2x_3=-5. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-2			
	B	2			
	C	1			
	D	-1			
16.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3=6, \\ 4x_1+5x_2+6x_3=9, \\ 7x_1+8x_2=-6. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	2			
	C	-2			
	D	-1			
17.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+x_2+3x_3=-13, \\ x_1+2x_2-x_3=-2, \\ 3x_1+x_2-4x_3=7. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-2			
	B	-1			
	C	-3			
	D	3			
18.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1+2x_2-3x_3=-1, \\ 2x_1+x_2+2x_3=4, \\ x_1-3x_2+x_3=9. \end{cases}$ $x_2=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-2			

	B	2			
	C	1			
	D	-1			
19.		Tenglamalr sistemasi berilgan. $\begin{cases} x_1 + 2x_2 - x_3 = 3, \\ 2x_1 - x_2 + 2x_3 = -1, \\ x_1 + 3x_2 - x_3 = 6. \end{cases}$ $x_3 = ?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	3			
	C	-1			
	D	1			
20.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1 + x_2 - x_3 = 2, \\ 2x_1 + 2x_2 - 3x_3 = -3, \\ x_1 + 2x_2 - 2x_3 = -5. \end{cases}$ $x_3 = ?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	-3			
	C	3			
	D	-1			
21.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1 + 2x_2 + x_3 = 8, \\ x_1 + 2x_2 + 3x_3 = 10, \\ 2x_1 - 3x_2 - 4x_3 = -4. \end{cases}$ $x_3 = ?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	2			
	C	3			
	D	-2			
22.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1 + 7x_2 - x_3 = 10, \\ x_1 + 2x_2 + x_3 = 2, \\ 3x_1 - 5x_2 + 3x_3 = -5. \end{cases}$ $x_3 = ?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-1			
	B	2			
	C	1			
	D	-2			
23.		Tenglamalar sistemasi berilgan.	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3

		$\begin{cases} x_1+2x_2+3x_3=5, \\ 3x_1-2x_2+3x_3=-1, \\ 2x_1+3x_2-2x_3=8. \end{cases}$ $x_3=?$			
	A	0			
	B	2			
	C	1			
	D	3			
24.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1-2x_2+x_3=8, \\ x_1+3x_2+x_3=-3, \\ 3x_1+2x_2-2x_3=-5. \end{cases}$ $x_3=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	-2			
	C	1			
	D	3			
25.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3=6, \\ 4x_1+5x_2+6x_3=9, \\ 7x_1+8x_2=-6. \end{cases}$ $x_3=?$	sodda	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	1			
	C	-2			
	D	3			
26.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+x_2+3x_3=-13, \\ x_1+2x_2-x_3=-2, \\ 3x_1+x_2-4x_3=7. \end{cases}$ $x_3=?$	o'rta	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-3			
	B	-2			
	C	-1			
	D	2			
27.		Tenglamalar sistemasi berilgan.	o'rta	3	LO12, T2.2, T5.1, T5.2, T5.3

		$\begin{cases} 3x_1+2x_2-3x_3=-1, \\ 2x_1+x_2+2x_3=4, \\ x_1-3x_2+x_3=9. \end{cases}$ $x_3=?$			
	A	1			
	B	-2			
	C	2			
	D	3			
28.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1+x_2+2x_3=1, \\ x_1+3x_2+2x_3=7, \\ 2x_1+x_2+3x_3=6. \end{cases}$ $x_1=?$	o'rta	3	
	A	-2			
	B	1			
	C	3			
	D	4			
29.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1+x_2+2x_3=1, \\ x_1+3x_2+2x_3=7, \\ 2x_1+x_2+3x_3=6. \end{cases}$ $x_2=?$	o'rta	3	
	A	1			
	B	-2			
	C	3			
	D	-1			
30.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1+x_2+2x_3=1, \\ x_1+3x_2+2x_3=7, \\ 2x_1+x_2+3x_3=6. \end{cases}$ $x_3=?$	o'rta	3	
	A	3			
	B	1			
	C	-2			
	D	-1			
31.		Tenglamalar sistemasi berilgan.	o'rta	3	

		$\begin{cases} 2x_1 - x_2 + 2x_3 = 3, \\ x_1 + x_2 + 2x_3 = -4, \\ 4x_1 + x_2 + 4x_3 = -3. \end{cases}$ $x_1 = ?$			
	A	1			
	B	-3			
	C	-1			
	D	2			
32.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1 - x_2 + 2x_3 = 3, \\ x_1 + x_2 + 2x_3 = -4, \\ 4x_1 + x_2 + 4x_3 = -3. \end{cases}$ $x_2 = ?$	o'rta	3	
	A	-3			
	B	1			
	C	-1			
	D	2			
33.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1 - x_2 + 2x_3 = 3, \\ x_1 + x_2 + 2x_3 = -4, \\ 4x_1 + x_2 + 4x_3 = -3. \end{cases}$ $x_3 = ?$	o'rta	3	
	A	-1			
	B	1			
	C	-3			
	D	2			
34.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1 - x_2 + x_3 = -11, \\ 5x_1 + x_2 + 2x_3 = 8, \\ x_1 + 2x_2 + 4x_3 = 16. \end{cases}$ $x_2 = ?$	o'rta	3	
	A	10			
	B	-1			
	C	1			
	D	2			
35.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1 - x_2 + x_3 = -11, \\ 5x_1 + x_2 + 2x_3 = 8, \\ x_1 + 2x_2 + 4x_3 = 16. \end{cases}$ $x_1 = ?$	o'rta	3	

	A	0			
	B	-1			
	C	10			
	D	1			
36.		Tenglamalar sistemasi berilgan. $\begin{cases} 3x_1 - x_2 + x_3 = -11, \\ 5x_1 + x_2 + 2x_3 = 8, \\ x_1 + 2x_2 + 4x_3 = 16. \end{cases}$ $x_3 = ?$	o'rta	3	
	A	-1			
	B	1			
	C	0			
	D	10			
37.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1 - 3x_2 - x_3 = 1, \\ 2x_1 + x_2 + x_3 = -7, \\ 2x_1 - x_2 - 3x_3 = 5. \end{cases}$ $x_2 = ?$	o'rta	3	
	A	0			
	B	-2			
	C	-3			
	D	1			
38.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1 - 3x_2 - x_3 = 1, \\ 2x_1 + x_2 + x_3 = -7, \\ 2x_1 - x_2 - 3x_3 = 5. \end{cases}$ $x_1 = ?$	o'rta	3	
	A	-2			
	B	-3			
	C	0			
	D	1			
39.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1 - 3x_2 - x_3 = 1, \\ 2x_1 + x_2 + x_3 = -7, \\ 2x_1 - x_2 - 3x_3 = 5. \end{cases}$ $x_3 = ?$	o'rta	3	
	A	-3			
	B	0			
	C	-2			
	D	1			
40.		Tenglamalar sistemasini yeching.	o'rta	3	

		$\begin{cases} x_1 - 3x_2 - x_3 = 1, \\ 2x_1 + x_2 + x_3 = -7, \\ 2x_1 - x_2 - 3x_3 = 5. \end{cases}$			
	A	$x_1 = -2,\ x_2 = 0,\ x_3 = -3.$			
	B	$x_1 = -1,\ x_2 = 0,\ x_3 = -2.$			
	C	$x_1 = -3,\ x_2 = 0,\ x_3 = 3.$			
	D	$x_1 = -2,\ x_2 = 4,\ x_3 = -3.$			
41.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1 + 2x_2 + x_3 - 2x_4 = -4 \\ x_2 + x_3 + 3x_4 = 1 \\ 2x_1 + x_3 - x_4 = 0 \\ 3x_1 + x_2 + 4x_3 = -2 \end{cases}$ $x_1 = ?$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	-1			
	C	0			
	D	2			
42.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1 + x_2 + x_4 = 4 \\ x_1 - x_2 + 2x_3 + 2x_4 = 1 \\ x_2 + 3x_3 + 2x_4 = -5 \\ 3x_1 - x_2 + 2x_3 = 3 \end{cases}$ $x_1 = ?$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	1			
	C	3			
	D	-2			
43.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1 + 2x_2 + x_3 - 2x_4 = -4 \\ x_2 + x_3 + 3x_4 = 1 \\ 2x_1 + x_3 - x_4 = 0 \\ 3x_1 + x_2 + 4x_3 = -2 \end{cases}$ $x_2 = ?$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-1			
	B	1			
	C	2			
	D	3			
44.		Tenglamalar sistemasi berilgan.	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3

		$\begin{cases} 2x_1+x_2+x_4=4 \\ x_1-x_2+2x_3+2x_4=1 \\ x_2+3x_3+2x_4=-5 \\ 3x_1-x_2+2x_3=3 \end{cases}$ $x_2=?$			
	A	-1			
	B	1			
	C	2			
	D	-2			
45.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3-2x_4=-4 \\ x_2+x_3+3x_4=1 \\ 2x_1+x_3-x_4=0 \\ 3x_1+x_2+4x_3=-2 \end{cases}$ $x_3=?$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-1			
	B	1			
	C	4			
	D	2			
46.		Tenglamalar sistemasi berilgan. $\begin{cases} 2x_1+x_2+x_4=4 \\ x_1-x_2+2x_3+2x_4=1 \\ x_2+3x_3+2x_4=-5 \\ 3x_1-x_2+2x_3=3 \end{cases}$ $x_3=?$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	-2			
	B	1			
	C	-1			
	D	2			
47.		Tenglamalar sistemasi berilgan. $\begin{cases} x_1+2x_2+x_3-2x_4=-4 \\ x_2+x_3+3x_4=1 \\ 2x_1+x_3-x_4=0 \\ 3x_1+x_2+4x_3=-2 \end{cases}$ $x_4=?$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	2			
	C	3			
	D	4			
48.		Tenglamalar sistemasi berilgan.	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3

		$\begin{cases} 2x_1+x_2+x_4=4 \\ x_1-x_2+2x_3+2x_4=1 \\ x_2+3x_3+2x_4=-5 \\ 3x_1-x_2+2x_3=3 \end{cases}$ $x_4=?$			
	A	1			
	B	-1			
	C	2			
	D	3			
49.		Tenglamalar sistemasini yeching. $\begin{cases} 2x_1+3x_2-x_3-x_4=8 \\ 3x_1+x_2-x_3+x_4=8 \\ x_1-x_2+x_3-x_4=0 \\ 3x_1+7x_2-3x_3-x_4=16 \end{cases}$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1=2$ $x_2=k+1$ $x_3=2k-1$ $x_4=k$			
	B	$x_1=2$ $x_2=2k+1$ $x_3=2k-1$ $x_4=3k$			
	C	$x_1=1$ $x_2=k+1$ $x_3=2k-1$ $x_4=k$			
	D	$x_1=2$ $x_2=k+1$ $x_3=2k-1$ $x_4=3k+1$			
50.		Tenglamalar sistemasini yeching. $\begin{cases} x_1-2x_2-3x_3+5x_4=-1 \\ 2x_1-3x_2+2x_3+5x_4=-3 \\ 5x_1-7x_2+9x_3+10x_4=-8 \\ x_1-x_2+5x_3=-2 \end{cases}$	Murakkab	3	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1=5k_2-13k_1-3$ $x_2=5k_2-8k_1-1$ $x_3=k_1$ $x_4=k_2$			

	B	$x_1 = 5k_2 - 13k_1 - 3$ $x_2 = 5k_2 - 8k_1 - 1$ $x_3 = k_1 + 1$ $x_4 = k_2$			
	C	$x_1 = 5k_2 - 13k_1 - 3$ $x_2 = 5k_2 - 8k_1 - 1$ $x_3 = k_1 + 1$ $x_4 = k_2 - 2$			
	D	$x_1 = 5k_2 - 13k_1 - 3$ $x_2 = 5k_2 - 8k_1 - 5$ $x_3 = k_1 + 1$ $x_4 = k_2 - 2$			

4-mavzu

№	Javob variantlari	Savol	Qiyinlik darajasi	Savolning shablondagi raqami	Teksh yotg ta'li natija
1		Agar kvadrat matritsaning bosh diagonalidan yuqoridagi barcha elementlari nollardan iborat bo`lsa, u qanday ataladi?	sodda		
	A	Quyi uchburchak matritsa.			
	B	Yuqori uchburchak matritsa.			
	C	Diagonal matritsa			
	D	Nol matritsa.			
2		Agar kvadrat matritsaning bosh diagonalidan pastdagi barcha elementlari nollardan iborat bo`lsa, u qanday ataladi?	sodda		
	A	Yuqori uchburchak matritsa.			
	B	Quyi uchburchak matritsa.			
	C	Diagonal matritsa			
	D	Nol matritsa.			
3		A kvadrat matritsaning $A=LU$ ifodasidagi U matritsa qanday matritsa bo`ladi?	sodda		
	A	Yuqori uchburchak matritsa.			
	B	Quyi uchburchak matritsa.			
	C	Diagonal matritsa			
	D	Simmetrik matritsa.			
4		A kvadrat matritsaning $A=LU$ ifodasidagi L matritsa qanday matritsa bo`ladi?	sodda		
	A	Quyi uchburchak matritsa.			
	B	Yuqori uchburchak matritsa.			
	C	Diagonal matritsa			
	D	Simmetrik matritsa.			
5		A kvadrat matritsaning $A=LDU$ ifodasidagi	sodda		

		D matritsa qanday matritsa bo`ladi?			
	A	Diagonal matritsa			
	B	Quyi uchburchak matritsa.			
	C	Yuqori uchburchak matritsa.			
	D	Simmetrik matritsa.			
6		$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & -4 \\ 0 & 0 & 1 \end{bmatrix}$ matritsa qanday ataladi?	sodda		
	A	Yuqori uchburchak matritsa.			
	B	Quyi uchburchak matritsa.			
	C	Diagonal matritsa			
	D	Simmetrik matritsa.			
7		Quyidagilardan qaysi biri elementar almashtirish?	sodda		
	A	Matritsaning biror satrini noldan farqli ixtiyoriy songa ko`paytirish.			
	B	Matritsaning biror satrini tashlab yuborish.			
	C	Matritsaning biror satr elementlarini boshqa satr mos elementlariga ko`paytirish.			
	D	Matritsaning biror satr elementlarini boshqa satr mos elementlariga bo`lish.			
8		Quyidagilardan qaysi biri elementar almashtirish emas?	sodda		
	A	Matritsaning biror satr elementlarini boshqa satr mos elementlariga ko`paytirish.			
	B	Matritsaning biror satrini noldan farqli ixtiyoriy songa bo`lish.			
	C	Matritsaning nollardan iborat satrini tashlab yuborish			
	D	Matritsaning biror satr elementlarini noldan farqli songa ko`paytirib boshqa satr mos elementlariga qo`shib yozish			
9		Quyidagilardan qaysi biri *L* matritsa bo`ladi?	sodda		
	A	$\begin{bmatrix} 1 & 0 \\ -3 & 1 \end{bmatrix}$			

	B	$\begin{bmatrix} 0 & 2 \\ -3 & 1 \end{bmatrix}$			
	C	$\begin{bmatrix} 1 & 5 \\ 0 & 1 \end{bmatrix}$			
	D	$\begin{bmatrix} 1 & 2 \\ -3 & 0 \end{bmatrix}$			
10		Quyidagilardan qaysi biri U matritsa bo`ladi?	sodda		
	A	$\begin{bmatrix} 1 & 5 \\ 0 & 1 \end{bmatrix}$			
	B	$\begin{bmatrix} 1 & 0 \\ -3 & 1 \end{bmatrix}$			
	C	$\begin{bmatrix} 0 & 2 \\ -3 & 1 \end{bmatrix}$			
	D	$\begin{bmatrix} 1 & 2 \\ -3 & 0 \end{bmatrix}$			
11		Quyidagilardan qaysi biri A kvadrat matritsaning $A=LDU$ yoyilmasidagi L matritsa bo`la oladi?	sodda		
	A	$\begin{bmatrix} 1 & 0 & 0 \\ 2 & 1 & 0 \\ -3 & 0 & 1 \end{bmatrix}$			
	B	$\begin{bmatrix} 1 & 2 & 1 \\ 3 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$			
	C	$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & -4 \\ 0 & 0 & 1 \end{bmatrix}$			
	D	$\begin{bmatrix} 3 & 1 & 3 \\ 0 & 2 & -4 \\ 0 & 0 & 1 \end{bmatrix}$			
12		Agar $A=\begin{bmatrix} 1 & 2 & -3 \\ -1 & 0 & 4 \end{bmatrix}$ va $B=\begin{bmatrix} -1 & 3 \\ 2 & 1 \\ 0 & 2 \end{bmatrix}$ matritsalar berilgan bo`lsa, $A\cdot B$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} 3 & -1 \\ 1 & 5 \end{bmatrix}$			

	B	$\begin{bmatrix} -4 & 1 & -2 \\ -2 & 4 & 0 \\ 15 & -2 & 8 \end{bmatrix}$			
	C	$\begin{bmatrix} 3 & 1 \\ -1 & 5 \end{bmatrix}$			
	D	$\begin{bmatrix} -4 & -2 & 15 \\ 1 & 4 & -2 \\ -2 & 0 & 8 \end{bmatrix}$.			
13		Agar $A=\begin{bmatrix} 1 & 2 & -3 \\ -1 & 0 & 4 \end{bmatrix}$ va $B=\begin{bmatrix} -1 & 3 \\ 2 & 1 \\ 0 & 2 \end{bmatrix}$ matritsalar berilgan bo`lsa, $A^T \cdot B^T$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} -4 & 1 & -2 \\ -2 & 4 & 0 \\ 15 & -2 & 8 \end{bmatrix}$			
	B	$\begin{bmatrix} 3 & -1 \\ 1 & 5 \end{bmatrix}$			
	C	$\begin{bmatrix} 3 & 1 \\ -1 & 5 \end{bmatrix}$			
	D	$\begin{bmatrix} -4 & -2 & 15 \\ 1 & 4 & -2 \\ -2 & 0 & 8 \end{bmatrix}$.			
14		Agar $A=\begin{bmatrix} 1 & 2 & -3 \\ -1 & 0 & 4 \end{bmatrix}$ va $B=\begin{bmatrix} -1 & 3 \\ 2 & 1 \\ 0 & 2 \end{bmatrix}$ matritsalar berilgan bo`lsa, $B \cdot A$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} -4 & -2 & 15 \\ 1 & 4 & -2 \\ -2 & 0 & 8 \end{bmatrix}$.			
	B	$\begin{bmatrix} 3 & -1 \\ 1 & 5 \end{bmatrix}$			

	C	$\begin{bmatrix} -4 & 1 & -2 \\ -2 & 4 & 0 \\ 15 & -2 & 8 \end{bmatrix}$			
	D	$\begin{bmatrix} 3 & 1 \\ -1 & 5 \end{bmatrix}$			
15		Agar $A=\begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix}$ va $B=\begin{bmatrix} -2 & 3 & -1 \end{bmatrix}$ matritsalar berilgan bo`lsa, $B\cdot A$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} 1 \end{bmatrix}$			
	B	$\begin{bmatrix} -4 & 9 & -4 \end{bmatrix}$			
	C	$\begin{bmatrix} -4 \\ 9 \\ -4 \end{bmatrix}$			
	D	$\begin{bmatrix} -4 & 6 & -2 \\ -6 & 9 & -3 \\ -8 & 12 & -14 \end{bmatrix}$.			
16		Agar $A=\begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix}$ va $B=\begin{bmatrix} -2 & 3 & -1 \end{bmatrix}$ matritsalar berilgan bo`lsa, $A\cdot B$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} -4 & 6 & -2 \\ -6 & 9 & -3 \\ -8 & 12 & -14 \end{bmatrix}$.			
	B	$\begin{bmatrix} 1 \end{bmatrix}$			
	C	$\begin{bmatrix} -2 & 3 & -1 \\ 2 & 3 & 4 \\ 0 & 6 & 3 \end{bmatrix}$			
	D	$\begin{bmatrix} -4 \\ 9 \\ -4 \end{bmatrix}$			
17		Agar $A=\begin{bmatrix} 2 & -1 & 5 \\ 3 & 2 & -4 \end{bmatrix}$ va $B=\begin{bmatrix} 4 \\ 3 \\ -2 \end{bmatrix}$ matritsalar berilgan bo`lsa, $A\cdot B$ ni hisoblang.	sodda		

	A	$\begin{bmatrix} -5 \\ 26 \end{bmatrix}$			
	B	$\begin{bmatrix} 8 & -3 & -10 \\ 12 & 6 & 8 \end{bmatrix}$			
	C	$\begin{bmatrix} 8 & 12 \\ -3 & 6 \\ -10 & 8 \end{bmatrix}$			
	D	$\begin{bmatrix} -5 & 26 \end{bmatrix}$			
18		Agar $A=\begin{bmatrix} 2 & -1 & 5 \\ 3 & 2 & -4 \end{bmatrix}$ va $B=\begin{bmatrix} 4 \\ 3 \\ -2 \end{bmatrix}$ matritsalar berilgan bo`lsa, $B^T \cdot A^T$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} -5 & 26 \end{bmatrix}$			
	B	$\begin{bmatrix} -5 \\ 26 \end{bmatrix}$			
	C	$\begin{bmatrix} 8 & 12 \\ -3 & 6 \\ -10 & 8 \end{bmatrix}$			
	D	$\begin{bmatrix} 8 & -3 & -10 \\ 12 & 6 & 8 \end{bmatrix}$			
19		$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & -4 \\ 0 & 0 & 1 \end{bmatrix}$ matritsa $A=LDU$ yoyilmaning qaysi matritsasi bo`la oladi?	sodda		
	A	U- matritsasi			
	B	L- matritsasi			
	C	D- matritsasi			
	D	Hech biri bo`la olmaydi			
20		$\begin{bmatrix} 1 & 0 & 0 \\ 2 & 3 & 0 \\ -3 & 1 & 4 \end{bmatrix}$ matritsa $A=LDU$ yoyilmaning qaysi matritsasi bo`la oladi?	sodda		
	A	Hech biri bo`la olmaydi			
	B	U- matritsasi			
	C	L- matritsasi			

	D	*D*- matritsasi			
21		$\begin{bmatrix} 1 & 0 & 0 \\ 2 & 1 & 0 \\ -3 & 4 & 1 \end{bmatrix}$ matritsa $A=LDU$ yoyilmaning qaysi matritsasi bo`la oladi?	sodda		
	A	*L*- matritsasi			
	B	Hech biri bo`la olmaydi			
	C	*U*- matritsasi			
	D	*D*- matritsasi			
22		Agar $A=\begin{bmatrix} 1 & 2 & -3 \\ -1 & 0 & 4 \end{bmatrix}$ va $B=\begin{bmatrix} -1 & 3 \\ 2 & 1 \\ 0 & 2 \end{bmatrix}$ matritsalar berilgan bo`lsa, $B^T \cdot A^T$ ni hisoblang.	sodda		
	A	$\begin{bmatrix} 3 & 1 \\ -1 & 5 \end{bmatrix}$			
	B	$\begin{bmatrix} 3 & -1 \\ 1 & 5 \end{bmatrix}$			
	C	$\begin{bmatrix} -4 & 1 & -2 \\ -2 & 4 & 0 \\ 15 & -2 & 8 \end{bmatrix}$			
	D	$\begin{bmatrix} -4 & -2 & 15 \\ 1 & 4 & -2 \\ -2 & 0 & 8 \end{bmatrix}$.			
23		Quyidagilardan qaysi biri *A* kvadrat matritsaning $A=LDU$ yoyilmasidagi *D* matritsa bo`la oladi?	sodda		
	A	$\begin{bmatrix} 3 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 1 \end{bmatrix}$			
	B	$\begin{bmatrix} 1 & 2 & 1 \\ 3 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$			
	C	$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & -4 \\ 0 & 0 & 1 \end{bmatrix}$			

	D	$\begin{bmatrix} 1 & 0 & 0 \\ 2 & 1 & 0 \\ -3 & 0 & 1 \end{bmatrix}$			
24		Agar $n\times k$ o`lchamli $A$ matritsa va $p\times m$ o`lchamli B matritsalar uchun $A\cdot B$ ko`paytma mavjud bo`lsa, quyidagi tenglik o`rinli:	sodda		
	A	$k=p$			
	B	$n=p$			
	C	$k=m$			
	D	$n=m$			
25		Agar $n\times k$ o`lchamli $A$ matritsa va $p\times m$ o`lchamli B matritsalar uchun $B\cdot A$ ko`paytma mavjud bo`lsa, quyidagi tenglik o`rinli:	sodda		
	A	$n=m$			
	B	$n=p$			
	C	$k=m$			
	D	$k=p$			
26		Quyidagilardan qaysi biri A kvadrat matritsaning $A=LDU$ yoyilmasidagi U matritsa bo`la oladi?	o'rta		
	A	$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 1 & -4 \\ 0 & 0 & 1 \end{bmatrix}$			
	B	$\begin{bmatrix} 3 & 1 & 3 \\ 0 & 2 & -4 \\ 0 & 0 & 1 \end{bmatrix}$			
	C	$\begin{bmatrix} 1 & 0 & 0 \\ 2 & 1 & 0 \\ -3 & 0 & 1 \end{bmatrix}$			
	D	$\begin{bmatrix} 1 & 2 & 1 \\ 3 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$			
27		Agar $A=\begin{bmatrix} 1 & 2 & -3 \\ -1 & 0 & 4 \end{bmatrix}$ va $B=\begin{bmatrix} -1 & 3 \\ 2 & 1 \\ 0 & 2 \end{bmatrix}$	o'rta		

		matritsalar berilgan bo`lsa, $\det(A\cdot B)$ ni hisoblang			
	A	16			
	B	-14			
	C	-16			
	D	-14			
28		Agar $A=\begin{bmatrix}2 & 1 & 3\\ 1 & -2 & 0\end{bmatrix}$ va $B=\begin{bmatrix}3 & 0\\ 2 & -4\\ -5 & -1\end{bmatrix}$ matritsalar berilgan bo`lsa, $\det(A\cdot B)$ ni hisoblang	o'rta		
	A	-63			
	B	63			
	C	36			
	D	0			
29		Agar $A=\begin{bmatrix}2 & 1\\ 1 & -2\\ 3 & 0\end{bmatrix}$ $B=\begin{bmatrix}-3 & -2 & 5\\ 0 & -4 & -1\end{bmatrix}$ va matritsalar berilgan bo`lsa, $\det(B\cdot A)$ ni hisoblang	o'rta		
	A	63			
	B	0			
	C	-63			
	D	36			
30		Berilgan $A=\begin{bmatrix}2 & 6\\ 4 & 7\end{bmatrix}$ matritsani LU ko`paytmaga yoying	o'rta		
	A	$\begin{bmatrix}1 & 0\\ 2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 6\\ 0 & -5\end{bmatrix}$.			
	B	$\begin{bmatrix}1 & 0\\ -2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 6\\ 0 & -5\end{bmatrix}$.			
	C	$\begin{bmatrix}1 & 0\\ 2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 0\\ 0 & -5\end{bmatrix}\cdot\begin{bmatrix}1 & 3\\ 0 & 1\end{bmatrix}$.			
	D	$\begin{bmatrix}1 & 0\\ -2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 0\\ 0 & 6\end{bmatrix}\cdot\begin{bmatrix}1 & 3\\ 0 & 1\end{bmatrix}$.			
31		Berilgan $A=\begin{bmatrix}2 & 6\\ 4 & 7\end{bmatrix}$ matritsani LDU ko`paytmaga yoying	o'rta		

	A	$\begin{bmatrix}1 & 0\\ 2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 0\\ 0 & -5\end{bmatrix}\cdot\begin{bmatrix}1 & 3\\ 0 & 1\end{bmatrix}$.			
	B	$\begin{bmatrix}1 & 0\\ -2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 0\\ 0 & 7\end{bmatrix}\cdot\begin{bmatrix}1 & 6\\ 0 & 1\end{bmatrix}$.			
	C	$\begin{bmatrix}1 & 0\\ 2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 6\\ 0 & -5\end{bmatrix}$.			
	D	$\begin{bmatrix}1 & 0\\ -2 & 1\end{bmatrix}\cdot\begin{bmatrix}2 & 6\\ 0 & -5\end{bmatrix}$.			
32		Agar $A=\begin{bmatrix}2\\ 3\\ 4\end{bmatrix}$ va $B=\begin{bmatrix}-2 & 3 & -1\end{bmatrix}$ matritsalar berilgan bo`lsa, $\det(A\cdot B)$ni hisoblang.	o'rta		
	A	0			
	B	4			
	C	-3			
	D	-4			
33		Agar $A=\begin{bmatrix}2\\ 1\\ 2\end{bmatrix}$ va $B=\begin{bmatrix}-4 & 3 & -1\end{bmatrix}$ matritsalar berilgan bo`lsa, $\det(A\cdot B)$ni hisoblang.	o'rta		
	A	0			
	B	4			
	C	2			
	D	-1			
34		Agar A kvadrat matritsa va I birlik matritsalardan tuzilgan A/I matritsani Gauss-Jordan usuli bilan I/B matritsaga keltirilgan bo`lsa, quyidagi tasdiqlardan qaysi biri o`rinli?	o'rta		
	A	B matritsa A matritsaga teskari matritsa			
	B	B - simmetrik matritsa			
	C	B matritsa A matritsaning transponirlangani			
	D	B - diagonal matritsa			
35		Agar $A=\begin{bmatrix}1 & 4\\ 2 & 7\end{bmatrix}$ matritsa berilgan bo`lsa, A/I matritsani tuzing va Gauss-Jordan usulida I/B matritsaga keltiring(I-birlik	o'rta		

		matritsa)			
	A	$\left[\begin{array}{cc\|cc} 1 & 0 & -7 & 4 \\ 0 & 1 & 2 & -1 \end{array}\right]$			
	B	$\left[\begin{array}{cc\|cc} 1 & 0 & 7 & -4 \\ 0 & 1 & -2 & 1 \end{array}\right]$			
	C	$\left[\begin{array}{cc\|cc} 1 & 0 & -7 & -2 \\ 0 & 1 & -4 & -1 \end{array}\right]$			
	D	$\left[\begin{array}{cc\|cc} 1 & 0 & 1 & 2 \\ 0 & 1 & 4 & 7 \end{array}\right]$			
36		Agar $A=\begin{bmatrix} 2 & 3 \\ 3 & 4 \end{bmatrix}$ matritsa berilgan bo`lsa, A/I matritsani tuzing va Gauss-Jordan usulida I/B matritsaga keltiring(*I*-birlik matritsa)	o'rta		
	A	$\left[\begin{array}{cc\|cc} 1 & 0 & -4 & 3 \\ 0 & 1 & 3 & -2 \end{array}\right]$			
	B	$\left[\begin{array}{cc\|cc} 1 & 0 & 3 & 4 \\ 0 & 1 & 2 & 3 \end{array}\right]$			
	C	$\left[\begin{array}{cc\|cc} 1 & 0 & -4 & -3 \\ 0 & 1 & -3 & -2 \end{array}\right]$			
	D	$\left[\begin{array}{cc\|cc} 1 & 0 & 4 & -3 \\ 0 & 1 & -3 & 2 \end{array}\right]$			
37		Agar $A=\begin{bmatrix} 3 & 2 \\ 4 & 3 \end{bmatrix}$ matritsa berilgan bo`lsa, A/I matritsani tuzing va Gauss-Jordan usulida I/B matritsaga keltiring(*I*-birlik matritsa)	o'rta		
	A	$\left[\begin{array}{cc\|cc} 1 & 0 & 3 & -2 \\ 0 & 1 & -4 & 3 \end{array}\right]$			
	B	$\left[\begin{array}{cc\|cc} 1 & 0 & 3 & 4 \\ 0 & 1 & 2 & 3 \end{array}\right]$			

	C	$\left[\begin{array}{cc\|cc} 1 & 0 & -3 & 4 \\ 0 & 1 & 2 & -3 \end{array}\right]$			
	D	$\left[\begin{array}{cc\|cc} 1 & 0 & 2 & 3 \\ 0 & 1 & 3 & 4 \end{array}\right]$			
38		Agar $A=\begin{bmatrix} 2 \\ 1 \\ -3 \end{bmatrix}$ va $B=\begin{bmatrix} -4 & 3 & 1 \end{bmatrix}$ matritsalar berilgan bo`lsa, $\det(A\cdot B)$ni hisoblang.	o'rta		
	A	0			
	B	4			
	C	2			
	D	-1			
39		$A=\begin{bmatrix} 1 & 1 & 0 \\ 3 & 1 & 6 \\ 4 & 6 & 1 \end{bmatrix}$ matritsaning LU ko`paytma shaklidagi U matritsani aniqlang	o'rta		
	A	$U=\begin{bmatrix} 1 & 1 & 0 \\ 0 & -2 & 6 \\ 0 & 0 & 7 \end{bmatrix}$			
	B	$U=\begin{bmatrix} 1 & 0 & 0 \\ -2 & 1 & 0 \\ 4 & 1 & 1 \end{bmatrix}$			
	C	$U=\begin{bmatrix} 1 & 1 & 0 \\ 0 & 2 & 6 \\ 1 & 0 & 4 \end{bmatrix}$			
	D	$U=\begin{bmatrix} 1 & 0 & 0 \\ 3 & 1 & 0 \\ 4 & -1 & 1 \end{bmatrix}$			
40		$A=\begin{bmatrix} 2 & 1 & -4 \\ 6 & 0 & -6 \\ -4 & 7 & -3 \end{bmatrix}$ matritsaning LU ko`paytma shaklidagi U matritsani aniqlang	o'rta		
	A	$U=\begin{bmatrix} 2 & 1 & -4 \\ 0 & -3 & 6 \\ 0 & 0 & 7 \end{bmatrix}$			

	B	$U=\begin{bmatrix}1 & 0 & 0\\ 3 & 1 & 0\\ -2 & -3 & 1\end{bmatrix}$			
	C	$U=\begin{bmatrix}1 & 0 & 0\\ -2 & 1 & 0\\ 4 & 1 & 1\end{bmatrix}$			
	D	$U=\begin{bmatrix}2 & 1 & -4\\ 0 & -2 & 6\\ 0 & 0 & 5\end{bmatrix}$			
41		Agar A kvadrat matritsa va I birlik matritsalardan tuzilgan A/I matritsani Gauss-Jordan usuli bilan I/B matritsaga keltirilgan bo`lsa, quyidagi tengliklardan qaysi biri o`rinli?	murakkab		
	A	$B^{-1}\cdot A^{-1}=I$			
	B	$B^{-1}\cdot A=I$			
	C	$B\cdot A^{-1}=I$			
	D	$B^{T}=A$			
42		Agar A kvadrat matritsa va I birlik matritsalardan tuzilgan A/I matritsani Gauss-Jordan usuli bilan I/B matritsaga keltirilgan bo`lsa, quyidagi tengliklardan qaysi biri noo`rin?	murakkab		
	A	$B^{-1}\cdot A=B\cdot A^{-1}$			
	B	$A^{-1}\cdot B^{-1}=I$			
	C	$B=A^{-1}$			
	D	$A^{-1}\cdot B^{-1}=A\cdot B$			
43		Agar A kvadrat matritsa va I birlik matritsalardan tuzilgan A/I matritsani Gauss-Jordan usuli bilan I/B matritsaga keltirilgan bo`lsa, quyidagi tengliklardan qaysi biri noo`rin?	murakkab		
	A	$B\cdot A^{-1}=I$			
	B	$A^{-1}\cdot B^{-1}=I$			
	C	$B=A^{-1}$			
	D	$B\cdot A=I$			
44		$A=\begin{bmatrix}1 & 3 & 1\\ 2 & 7 & 2\\ 1 & 4 & 2\end{bmatrix}$ matritsaning LU ko`paytma shaklidagi L matritsani aniqlang	murakkab		

	A	$L=\begin{bmatrix}1&0&0\\2&1&0\\1&1&1\end{bmatrix}$			
	B	$L=\begin{bmatrix}1&3&1\\0&1&2\\0&0&1\end{bmatrix}$			
	C	$L=\begin{bmatrix}1&0&0\\-2&1&0\\1&4&1\end{bmatrix}$			
	D	$L=\begin{bmatrix}1&0&0\\-2&1&0\\4&1&1\end{bmatrix}$			
45		Agar $A=\begin{bmatrix}1&3&1\\2&7&2\\1&4&2\end{bmatrix}$ matritsa berilgan bo`lsa, A/I matritsani tuzing va Gauss-Jordan usulida I/A^{-1} matritsaga keltiring(*I*-birlik matritsa).	murakkab		
	A	$\left[\begin{array}{ccc\|ccc}1&0&0&6&-2&-1\\0&1&0&-2&1&0\\0&0&1&1&-1&1\end{array}\right]$			
	B	$\left[\begin{array}{ccc\|ccc}1&0&0&6&2&-1\\0&1&0&2&1&0\\0&0&1&1&1&1\end{array}\right]$			
	C	$\left[\begin{array}{ccc\|ccc}1&0&0&6&-2&-1\\0&1&0&-2&1&-1\\0&0&1&1&0&1\end{array}\right]$			
	D	$\left[\begin{array}{ccc\|ccc}1&0&0&1&2&1\\0&1&0&3&7&4\\0&0&1&1&2&2\end{array}\right]$			
46		Berilgan $A=\begin{bmatrix}1&3&1\\2&7&2\\1&4&2\end{bmatrix}$ matritsani LU ko`paytmaga yoying	murakkab		

	A	$\begin{bmatrix}1&0&0\\2&1&0\\1&1&1\end{bmatrix}\cdot\begin{bmatrix}1&3&1\\0&1&0\\0&0&1\end{bmatrix}$			
	B	$\begin{bmatrix}1&0&0\\-2&1&0\\-1&-4&1\end{bmatrix}\cdot\begin{bmatrix}1&3&1\\0&1&2\\0&0&1\end{bmatrix}$			
	C	$\begin{bmatrix}1&0&0\\-2&1&0\\1&4&1\end{bmatrix}\cdot\begin{bmatrix}1&3&1\\0&1&1\\0&0&1\end{bmatrix}$			
	D	$\begin{bmatrix}1&0&0\\2&1&0\\1&4&1\end{bmatrix}\cdot\begin{bmatrix}1&3&1\\0&7&1\\0&0&2\end{bmatrix}$			
47		Berilgan $A=\begin{bmatrix}1&4&2\\2&5&6\\3&3&1\end{bmatrix}$ matritsani LU ko`paytmaga yoying	murakkab		
	A	$\begin{bmatrix}1&0&0\\2&1&0\\3&3&1\end{bmatrix}\cdot\begin{bmatrix}1&4&2\\0&-3&2\\0&0&-11\end{bmatrix}$			
	B	$\begin{bmatrix}1&0&0\\-2&1&0\\-3&-3&1\end{bmatrix}\cdot\begin{bmatrix}1&4&2\\0&5&6\\0&0&25\end{bmatrix}$			
	C	$\begin{bmatrix}1&0&0\\2&1&0\\3&3&1\end{bmatrix}\cdot\begin{bmatrix}1&4&2\\0&1&6\\0&0&1\end{bmatrix}$			
	D	$\begin{bmatrix}1&0&0\\2&1&0\\3&3&1\end{bmatrix}\cdot\begin{bmatrix}1&4&2\\0&5&6\\0&0&1\end{bmatrix}$			
48		Berilgan $A=\begin{bmatrix}2&1&-4\\6&0&-6\\-4&7&-3\end{bmatrix}$ matritsani LU ko`paytmaga yoying.	murakkab		

	A	$\begin{bmatrix} 1 & 0 & 0 \\ 3 & 1 & 0 \\ -2 & -3 & 1 \end{bmatrix} \cdot \begin{bmatrix} 2 & 1 & -4 \\ 0 & -3 & 6 \\ 0 & 0 & 7 \end{bmatrix}$			
	B	$\begin{bmatrix} 1 & 0 & 0 \\ 6 & 1 & 0 \\ 4 & 7 & 1 \end{bmatrix} \cdot \begin{bmatrix} 2 & 1 & -4 \\ 0 & 0 & 6 \\ 0 & 0 & -3 \end{bmatrix}$			
	C	$\begin{bmatrix} 1 & 0 & 0 \\ -6 & 1 & 0 \\ 4 & -7 & 1 \end{bmatrix} \cdot \begin{bmatrix} 2 & 1 & -4 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$			
	D	$\begin{bmatrix} 1 & 0 & 0 \\ 6 & 1 & 0 \\ 4 & -7 & 1 \end{bmatrix} \cdot \begin{bmatrix} 2 & 1 & 4 \\ 0 & 0 & 6 \\ 0 & 0 & -3 \end{bmatrix}$			
49		$A = \begin{bmatrix} 1 & 1 & 0 \\ 3 & 1 & 6 \\ 4 & 6 & 1 \end{bmatrix}$ matritsaning LU ko`paytma shaklidagi L matritsani aniqlang.	murakkab		
	A	$L = \begin{bmatrix} 1 & 0 & 0 \\ 3 & 1 & 0 \\ 4 & -1 & 1 \end{bmatrix}$			
	B	$L = \begin{bmatrix} 1 & 1 & 0 \\ 0 & 2 & 6 \\ 1 & 0 & 4 \end{bmatrix}$			
	C	$L = \begin{bmatrix} 1 & 0 & 0 \\ -2 & 1 & 0 \\ 4 & 1 & 1 \end{bmatrix}$			
	D	$L = \begin{bmatrix} 1 & 1 & 0 \\ 0 & -2 & 6 \\ 0 & 0 & 7 \end{bmatrix}$			
50		$A = \begin{bmatrix} 2 & 1 & -4 \\ 6 & 0 & -6 \\ -4 & 7 & -3 \end{bmatrix}$ matritsaning LU ko`paytma shaklidagi L matritsani aniqlang	murakkab		
	A	$L = \begin{bmatrix} 1 & 0 & 0 \\ 3 & 1 & 0 \\ -2 & -3 & 1 \end{bmatrix}$			

	B	$L=\begin{bmatrix} 2 & 1 & -4 \\ 0 & -2 & 6 \\ 0 & 0 & 5 \end{bmatrix}$			
	C	$L=\begin{bmatrix} 1 & 0 & 0 \\ -2 & 1 & 0 \\ 4 & 1 & 1 \end{bmatrix}$			
	D	$L=\begin{bmatrix} 2 & 1 & -4 \\ 0 & -3 & 6 \\ 0 & 0 & 7 \end{bmatrix}$			

5-mavzu

№	Жавоб вариантлари	Савол	Қийинлик даражаси	Саволнинг шаблондаги рақами	Текширилаётган таълим натижалари
1.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(1;-3;2),$ $\overset{v}{b}=(4;-2;1),$ $\overset{v}{c}=(3;2;5).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
2.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(2;-3;1),$ $\overset{v}{b}=(-1;-2;3),$ $\overset{v}{c}=(1;2;2).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
3.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(2;-4;1),$ $\overset{v}{b}=(-2;-2;1),$ $\overset{v}{c}=(-1;2;2).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
4.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(1;-4;4),$ $\overset{v}{b}=(-2;2;2),$ $\overset{v}{c}=(-3;3;2).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			

	C	vektorlar sistemasi chiziqli bog’liq			
	D	vektorlar sistemasi chiziqli bog’liq emas			
5.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(2;-4;4),$ $\overset{v}{b}=(-2;1;2),$ $\overset{v}{c}=(-3;3;0).$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog’liq			
	D	vektorlar sistemasi chiziqli bog’liq emas			
6.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(2;-4;1),$ $\overset{v}{b}=(-2;2;2),$ $\overset{v}{c}=(-1;3;0).$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog’liq			
	D	vektorlar sistemasi chiziqli bog’liq emas			
7.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(2;-1;1),$ $\overset{v}{b}=(-3;2;3),$ $\overset{v}{c}=(-1;3;0).$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog’liq			
	D	vektorlar sistemasi chiziqli bog’liq emas			
8.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\overset{v}{a}=(2;-2;3),$ $\overset{v}{b}=(0;2;3),$ $\overset{v}{c}=(-1;2;1).$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog’liq			

	D	vektorlar sistemasi chiziqli bog'liq emas			
9.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\vec{a}=(1;-2;3)$, $\vec{b}=(3;2;0)$, $\vec{c}=(-1;2;1)$.	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
10.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $\vec{a}=(3;-2;3)$, $\vec{b}=(2;3;1)$, $\vec{c}=(-3;2;2)$.	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
11.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1=\{2,-3,2\}$, $\vec{a}_2=\{3,2,1\}$, $\vec{a}_3=\{4,1,2\}$, $\vec{b}=\{1,2,3\}$.	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}=-8\vec{a}_1-21\vec{a}_2+20\vec{a}_3$			
	B	$\vec{b}=8\vec{a}_1+21\vec{a}_2+20\vec{a}_3$			
	C	$\vec{b}=-21\vec{a}_1-8\vec{a}_2+20\vec{a}_3$			
	D	$\vec{b}=21\vec{a}_1+8\vec{a}_2+20\vec{a}_3$			
12.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1=\{2,-3,2\}$, $\vec{a}_2=\{1,2,1\}$, $\vec{a}_3=\{4,1,2\}$, $\vec{b}=\{1,2,2\}$.	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}=-0.5\vec{a}_1+2\vec{a}_2-0.5\vec{a}_3$			
	B	$\vec{b}=0.5\vec{a}_1-2\vec{a}_2-0.5\vec{a}_3$			
	C	$\vec{b}=-0.5\vec{a}_1-2\vec{a}_2+0.5\vec{a}_3$			
	D	$\vec{b}=0.5\vec{a}_1-2\vec{a}_2+0.5\vec{a}_3$			
13.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3

		$\vec{a}_1=\{1,-3,1\}$, $\vec{a}_2=\{3,2,1\}$, $\vec{a}_3=\{2,1,2\}$, $\vec{b}=\{1,2,3\}$.			
	A	$\vec{b}=-0.5\vec{a}_1-0.5\vec{a}_2+1.5\vec{a}_3$			
	B	$\vec{b}=0.5\vec{a}_1-0.5\vec{a}_2-1.5\vec{a}_3$			
	C	$\vec{b}=-0.5\vec{a}_1+0.5\vec{a}_2-1.5\vec{a}_3$			
	D	$\vec{b}=0.5\vec{a}_1+0.5\vec{a}_2+1.5\vec{a}_3$			
14.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1=\{2,-3,1\}$, $\vec{a}_2=\{1,2,1\}$, $\vec{a}_3=\{2,1,2\}$, $\vec{b}=\{1,2,3\}$.	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}=-\vec{a}_1-\vec{a}_2+2\vec{a}_3$			
	B	$\vec{b}=\vec{a}_1-\vec{a}_2-2\vec{a}_3$			
	C	$\vec{b}=-2\vec{a}_1-\vec{a}_2+\vec{a}_3$			
	D	$\vec{b}=\vec{a}_1+\vec{a}_2-2\vec{a}_3$			
15.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1=\{1,3,-2\}$, $\vec{a}_2=\{2,3,-2\}$, $\vec{a}_3=\{1,-1,2\}$, $\vec{b}=\{2,-1,2\}$.	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}=2\vec{a}_1-\vec{a}_2+2\vec{a}_3$			
	B	$\vec{b}=-2\vec{a}_1+\vec{a}_2+2\vec{a}_3$			
	C	$\vec{b}=2\vec{a}_1-2\vec{a}_2+\vec{a}_3$			
	D	$\vec{b}=\vec{a}_1-2\vec{a}_2-2\vec{a}_3$			
16.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1=\{3,2,-2\}$, $\vec{a}_2=\{2,1,-2\}$, $\vec{a}_3=\{1,-1,2\}$, $\vec{b}=\{2,-1,2\}$.	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}=\vec{a}_1-\vec{a}_2+\vec{a}_3$			
	B	$\vec{b}=-\vec{a}_1+\vec{a}_2+\vec{a}_3$			
	C	$\vec{b}=-\vec{a}_1+\vec{a}_2-\vec{a}_3$			
	D	$\vec{b}=-\vec{a}_1-\vec{a}_2-\vec{a}_3$			
		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1=\{1,2,-3\}$, $\vec{a}_2=\{-1,3,-4\}$, $\vec{a}_3=\{2,0,5\}$, $\vec{b}=\{2,-1,1\}$.	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

17.	A	$\vec{b} = \vec{a}_1 - \vec{a}_2$			
	B	$\vec{b} = -\vec{a}_1 + \vec{a}_2$			
	C	$\vec{b} = 2\vec{a}_1 - \vec{a}_2$			
	D	$\vec{b} = \vec{a}_1 - 2\vec{a}_2$			
18.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1 = \{1,-2,-3\}, \vec{a}_2 = \{-1,2,-4\}, \vec{a}_3 = \{2,1,3\}, \vec{b} = \{1,-2,3\}.$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b} = 7\vec{a}_1 + 6\vec{a}_2$			
	B	$\vec{b} = -7\vec{a}_1 - 6\vec{a}_2$			
	C	$\vec{b} = 6\vec{a}_1 + 7\vec{a}_2$			
	D	$\vec{b} = 6\vec{a}_1 - 7\vec{a}_2$			
19.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1 = \{-2,-2,-3\}, \vec{a}_2 = \{1,2,1\}, \vec{a}_3 = \{2,4,3\}, \vec{b} = \{1,-2,3\}.$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b} = -2\vec{a}_1 - 3\vec{a}_2$			
	B	$\vec{b} = 2\vec{a}_1 + 3\vec{a}_2$			
	C	$\vec{b} = -3\vec{a}_1 - 2\vec{a}_2$			
	D	$\vec{b} = 3\vec{a}_1 - 2\vec{a}_2$			
20.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1 = \{-1,-2,3\}, \vec{a}_2 = \{1,-2,1\}, \vec{a}_3 = \{2,-4,3\}, \vec{b} = \{1,-2,3\}.$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b} = -3\vec{a}_2 + 2\vec{a}_3$			
	B	$\vec{b} = 3\vec{a}_2 - 2\vec{a}_3$			
	C	$\vec{b} = -2\vec{a}_2 + 3\vec{a}_3$			
	D	$\vec{b} = 2\vec{a}_2 - 3\vec{a}_3$			
21.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1 = \{-2,-2,3\}, \vec{a}_2 = \{3,2,-4\}, \vec{a}_3 = \{-2,-2,3\}, \vec{b} = \{-2,-2,3\}.$	sodda	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b} = \vec{a}_1$			

	B	$\vec{b} = -2\vec{a}_1$			
	C	$\vec{b} = 2\vec{a}_1$			
	D	$\vec{b} = -\vec{a}_1$			
22.		$\vec{b}$ vektorini $\vec{a}_1, \vec{a}_2, \vec{a}_3$ bazis orqali yoying $\vec{a}_1 = \{3,-4,2\}, \vec{a}_2 = \{5,3,-1\}, \vec{a}_3 = \{-3,-1,2\}, \vec{b} = \{1,-3,2\}.$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b} = \frac{2}{3}\vec{a}_1 + \frac{1}{3}\vec{a}_3$			
	B	$\vec{b} = -\frac{2}{3}\vec{a}_1 - \frac{1}{3}\vec{a}_3$			
	C	$\vec{b} = \frac{1}{3}\vec{a}_1 + \frac{2}{3}\vec{a}_3$			
	D	$\vec{b} = -\frac{1}{3}\vec{a}_1 - \frac{2}{3}\vec{a}_3$			
23.		To'rt o'lchamli fazoda basis tashkil qiladimi: $\vec{a} = (1;2;3;4),$ $\vec{b} = (2;5;6;8),$ $\vec{c} = (1;3;2;4),$ $\vec{d} = (2;5;4;7).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	to'rt o'lchamli fazoda basis tashkil qiladi			
	B	to'rt o'lchamli fazoda basis tashkil qilmaydi			
	C	fazoda vektorlar sistemasi chiziqli bog'liq			
	D	fazoda vektorlar sistemasi chiziqli bog'liq emas			
24.		To'rt o'lchamli fazoda basis tashkil qiladimi: $\vec{a} = (3;-2;1),$ $\vec{b} = (2;1;2),$ $\vec{c} = (3;-1;-2),$ $\vec{d} = (0;1;2).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	to'rt o'lchamli fazoda basis tashkil qiladi			
	B	to'rt o'lchamli fazoda basis tashkil qilmaydi			
	C	fazoda vektorlar sistemasi chiziqli bog'liq			
	D	fazoda vektorlar sistemasi chiziqli bog'liq emas			
25.		Berilgan vektorlar sistemasi bazis tashkil qiladimi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

		$a=(1;2;-1;-2)$, $b=(0;2;1;-3)$, $c=(1;0;0;5)$.			
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
26.		Vektorlar sistemasi chiziqli bog'liqmi: $\begin{pmatrix}1\\-1\\3\end{pmatrix},\begin{pmatrix}2\\-1\\4\end{pmatrix},\begin{pmatrix}2\\0\\2\end{pmatrix}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi chiziqli bog'liq			
	B	vektorlar sistemasi chiziqli erkli			
	C	vektorlar sistemasi chiziqli erkliemas			
	D	vektorlar sistemasi chiziqli bog'liq emas			
27.		Vektorlar sistemasi chiziqli bog'liqmi: $\overset{r}{a}_1=\begin{pmatrix}2\\1\\1\\2\end{pmatrix},\overset{r}{a}_2=\begin{pmatrix}1\\3\\1\\3\end{pmatrix},\overset{r}{a}_1=\begin{pmatrix}3\\-1\\1\\1\end{pmatrix}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi chiziqli bog'liq			
	B	vektorlar sistemasi chiziqli erkli			
	C	vektorlar sistemasi chiziqli erkliemas			
	D	vektorlar sistemasi chiziqli bog'liq emas			
28.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $a=(4;-2;2;)$, $b=(-3;3;-4)$, $c=(2;-4;3)$.	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
29.		Berilgan vektorlar sistemasi bazis tashkil qiladimi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

		$a=(4;1;4),$ $b=(-2;-1;1),$ $c=(3;1;5).$			
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
30.		Berilgan vektorlar sistemasi bazis tashkil qiladimi: $a=(1;-2;3),$ $b=(4;7;2),$ $c=(6;4;2).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi bazis tashkil qiladi			
	B	vektorlar sistemasi bazis tashkil qilamaydidi			
	C	vektorlar sistemasi chiziqli bog'liq			
	D	vektorlar sistemasi chiziqli bog'liq emas			
31.		Vektorlar sistemasi chiziqli bog'liqmi: $a=(1;2;4),$ $b=(2;-1;0),$ $c=(4;3;-8).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar sistemasi chiziqli bog'liq			
	B	vektorlar sistemasi chiziqli erkli			
	C	vektorlar sistemasi chiziqli erkliemas			
	D	vektorlar sistemasi chiziqli bog'liq emas			
32.		$\vec{a},\vec{b},\vec{c}$ vektorlar bazis tashkil qiladi va shu basis asosida $\vec{d}$ vektorning koordinatalarini toping: $\vec{a}=(2;0;1),$ $\vec{b}=(1;2;-1),$ $\vec{c}=(0;4;-1),$ $\vec{d}=(-1;-2;3).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{d}=\vec{a}-3\vec{b}+\vec{c}$			
	B	$\vec{d}=-\vec{a}\_+3\vec{b}-\vec{c}$			
	C	$\vec{d}=\vec{a}+\vec{b}-3\vec{c}$			
	D	$\vec{d}=\vec{a}-\vec{b}+3\vec{c}$			
33.		$\vec{a},\vec{b},\vec{c}$ vektorlar bazis tashkil qiladi va shu basis asosida $\vec{d}$ vektorning	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

		koordinatalarini toping: $\vec{a}=(1;2;3),$ $\vec{b}=(2;3;7),$ $\vec{c}=(1;3;1),$ $\vec{d}=(2;3;4).$			
	A	$\vec{d}=(-9;4;3)$			
	B	$\vec{d}=(9;-4;3)$			
	C	$\vec{d}=(-9;4;-3)$			
	D	$\vec{d}=(9;4;3)$			
34.		$\vec{a},\vec{b},\vec{c}$ vektorlar bazis tashkil qiladi va shu basis asosida $\vec{d}$ vektorning koordinatalarini toping: $\vec{a}=(1;2;3),$ $\vec{b}=(2;-2;1),$ $\vec{c}=(1;-2;0),$ $\vec{d}=(0;3;1).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{d}=0.5\vec{a}+0.5\vec{b}-1.5\vec{c}$			
	B	$\vec{d}=-0.5\vec{a}-0.5\vec{b}+1.5\vec{c}$			
	C	$\vec{d}=0.5\vec{a}+1.5\vec{b}-0.5\vec{c}$			
	D	$\vec{d}=1.5\vec{a}+0.5\vec{b}-0.5\vec{c}$			
35.		$\vec{a},\vec{b},\vec{c}$ vektorlar bazis tashkil qiladi va shu basis asosida $\vec{d}$ vektorning koordinatalarini toping: $\vec{a}=(5;1;2),$ $\vec{b}=(3;4;-1),$ $\vec{c}=(-4;2;1),$ $\vec{d}=(-3;5;4).$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{d}=\vec{a}+2\vec{c}$			
	B	$\vec{d}=-\vec{a}-2\vec{c}$			
	C	$\vec{d}=-2\vec{a}-\vec{c}$			
	D	$\vec{d}=2\vec{a}+\vec{c}$			
36.		Tenglamalar sistemasini hisoblang $\begin{cases}x_1+2x_2+x_3=0\\-2x_1-x_2+x_3=0\\x_1+4x_2+3x_3=0\end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(2,-2,2).$			

	B	$(2,2,-2).$			
	C	$(1,-2,2).$			
	D	$(2,-1,2).$			
37.		Sistemaning umumiy yechimini toping $\begin{cases} 3x_1+2x_2-x_3-x_4=0 \\ x_1-x_2-x_3+x_4=0 \\ 6x_1-x_2-4x_3+2x_4=0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$a_1=3c_1+c_2,$ $a_2=-2c_1+4c_2,$ $a_3=5c_1,\ a_4=5c_2$			
	B	$a_1=3c_1+c_2,$ $a_2=-2c_1+2c_2,$ $a_3=5c_1,\ a_4=5c_2$			
	C	$a_1=c_1+3c_2,$ $a_2=-2c_1+2c_2,$ $a_3=5c_1,\ a_4=5c_2$			
	D	$a_1=3c_1+c_2,$ $a_2=-4c_1+4c_2,$ $a_3=5c_1,\ a_4=2c_2$			
38.		Tenglamalar sistemasini hisoblang $\begin{cases} 3x_1+2x_2-x_3=0 \\ 2x_1-x_2+3x_3=0 \\ x_1+3x_2-4x_3=0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$5k,-11k,-7k.$			
	B	$5k,+11k,-7k.$			
	C	$5k,-7k,-11k.$			
	D	$5k,+7k,+11k.$			
39.		Tenglamalar sistemasini hisoblang $\begin{cases} 3x_1+2x_2-x_3=0 \\ 2x_1-x_2+3x_3=0 \\ x_1+x_2-x_3=0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1=x_2=x_3=0$			
	B	$x_1=x_2=0,\ x_3=-1$			
	C	$x_1=x_2=1,\ x_3=0$			
	D	$x_1=1,\ x_2=x_3=0$			
40.		Tenglamalar sistemasini hisoblang $\begin{cases} 2x_1-5x_2+2x_3=0 \\ x_1+4x_2-3x_3=0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

	A	$7k, 8k, 13k.$			
	B	$7k, -8k, -13k.$			
	C	$7k, 13k, 8k.$			
	D	$7k, -13k, -8k.$			
41.		Tenglamalar sistemasini hisoblang $\begin{cases} 3x_1 + 2x_2 + 2x_3 = 0 \\ 5x_1 + 2x_2 + 3x_3 = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$2k,\ k,\ -4k.$			
	B	$2k,\ -k,\ 4k.$			
	C	$2k,\ 4k,\ -k.$			
	D	$-2k,\ -k,\ 4k.$			
42.		Tenglamalar sistemasini hisoblang $\begin{cases} 3x_1 - x_2 + 2x_3 = 0 \\ 2x_1 + 3x_2 - 5x_3 = 0 \\ x + y + z = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1 = x_2 = x_3 = 0$			
	B	$x_1 = x_2 = -1,\ x_3 = 0$			
	C	$x_1 = x_2 = 0,\ x_3 = 1$			
	D	$x_1 = 1,\ x_2 = x_3 = 1$			
43.		Tenglamalar sistemasini hisoblang $\begin{cases} 2x_1 - x_2 + 3x_3 = 0 \\ x_1 + 2x_2 - 5x_3 = 0 \\ 3x + y - 2z = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$-k,\ 13k,\ 5k.$			
	B	$k,\ -13k,\ 5k.$			
	C	$-k,\ 5k,\ 13k.$			
	D	$k,\ 13k,\ -5k.$			
44.		Tenglamalar sistemasini hisoblang $\begin{cases} x_1 - x_2 - 5x_3 = 0 \\ 3x_1 - 2x_2 - 13x_3 = 0 \\ 2x_1 - x_2 - 8x_3 = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$3k,\ -2k,\ k.$			
	B	$3k,\ 2k,\ -k.$			
	C	$3k,\ k,\ 2k.$			
	D	$k,\ -2k,\ 2k.$			
45.		Tenglamalar sistemasini hisoblang	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

		$\begin{cases} x_1+2x_2-3x_3+x_4=0 \\ 2x_1+3x_2+x_3-2x_4=0 \\ x_1+x_2+4x_3-3x_4=0 \\ 3x_1+5x_2-2x_3-x_4=0 \end{cases}$			
	A	$x_1=-11t+7s$ $x_2=7t-4s$ $x_3=t$ $x_4=s$			
	B	$x_1=7t+-11s$ $x_2=7t-4s$ $x_3=t$ $x_4=s$			
	C	$x_1=-11t+7s$ $x_2=4t-7s$ $x_3=t$ $x_4=s$			
	D	$x_1=11t-7s$ $x_2=-7t+4s$ $x_3=t$ $x_4=s$			
46.		Tenglamalar sistemasini hisoblang $\begin{cases} x_1-2x_4+x_5=0 \\ 3x_1-x_2-x_4=0 \\ x_4-x_3=0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1=2t-5s$ $x_2=5t-3s$ $x_3=t$ $x_4=t$ $x_5=s$			
	B	$x_1=2t-5s$ $x_2=-5t+3s$ $x_3=t$ $x_4=t$ $x_5=s$			
	C	$x_1=5t-2s$ $x_2=5t-3s$ $x_3=t$ $x_4=t$ $x_5=s$			

	D	$x_1 = 5t - 2s$ $x_2 = -3t + 5s$ $x_3 = t$ $x_4 = t$ $x_5 = s$			
47.		Tenglamalar sistemasini hisoblang $\begin{cases} x_1 - x_2 = 0 \\ x_1 + x_2 - x_3 = 0 \\ -x_2 + x_3 = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1 = t/2$ $x_2 = t/2$ $x_3 = t$			
	B	$x_1 = -t/2$ $x_2 = t/2$ $x_3 = t$			
	C	$x_1 = t/2$ $x_2 = t/2$ $x_3 = -t$			
	D	$x_1 = t/2$ $x_2 = -t/2$ $x_3 = -t$			
48.		Tenglamalar sistemasini hisoblang $\begin{cases} x_1 + x_2 + x_3 - x_4 = 0 \\ x_1 - x_2 + 2x_3 = 0 \\ 2x_1 + 3x_3 - x_4 = 0 \\ 2x_2 - x_3 - x_4 = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$x_1 = -\frac{3}{2}t + \frac{1}{2}s$ $x_2 = \frac{1}{2}t + \frac{1}{2}s$ $x_3 = t$ $x_4 = s$			
	B	$x_1 = \frac{3}{2}t - \frac{1}{2}s$ $x_2 = \frac{1}{2}t + \frac{1}{2}s$ $x_3 = t$ $x_4 = s$			

	C	$x_1 = \frac{3}{2}t + \frac{1}{2}s$ $x_2 = -\frac{1}{2}t - \frac{1}{2}s$ $x_3 = t$ $x_4 = s$			
	D	$x_1 = -\frac{3}{2}t + \frac{1}{2}s$ $x_2 = \frac{1}{2}t + \frac{1}{2}s$ $x_3 = -t$ $x_4 = -s$			
49.		Tenglamalar sistemasini fundamental yechimini toping $\begin{cases} x_1 + 2x_2 + 4x_3 - 3x_4 = 0 \\ 3x_1 + 5x_2 + 6x_3 - 4x_4 = 0 \\ 4x_1 + 5x_2 - 2x_3 + 3x_4 = 0 \\ 3x_1 + 8x_2 + 24x_3 - 19x_4 = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{u}_1 = (8, -6, 1, 0);$ $\vec{u}_2 = (-7, 5, 0, 1)$			
	B	$\vec{u}_1 = (8, 6, 1, 0);$ $\vec{u}_2 = (7, 5, 0, 1)$			
	C	$\vec{u}_1 = (-8, -6, 1, 0);$ $\vec{u}_2 = (7, -5, 0, 1)$			
	D	$\vec{u}_1 = (8, 6, 1, 0);$ $\vec{u}_2 = (7, 5, 0, 1)$			
50.		Tenglamalar sistemasini fundamental yechimini toping. $\begin{cases} x_1 + 2x_2 + 3x_3 - 2x_4 + x_5 = 0 \\ 3x_1 + 6x_2 + 5x_3 - 4x_4 + 3x_5 = 0 \\ x_1 + 2x_2 + 7x_3 - 4x_4 + 3x_5 = 0 \\ 2x_1 + 4x_2 + 2x_3 - 3x_4 + 3x_5 = 0 \end{cases}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$a = (-2;1;0;0;0),$ $b = (-1;0;1;2;2)$			
	B	$a = (2;1;0;0;0),$ $b = (1;0;1;2;2)$			

	C	$a=(-2;1;0;0;0),$ $b=(1;0;1;-2;2)$			
	D	$a=(2;-1;0;0;0),$ $b=(1;0;-1;2;2)$			

6-mavzu

№	Жавобвариантлари	Савол	Қийинликдаражаси	Саволнингшаблондагирақами	Текширилаётгантаълимнатижалари
6.		A sistemamatrisasi, B kengaytirilganmatrissabo'lsa, qachontenglamalarsistemasiyagonayechimgaega?	содда	6	LO3, LO5
	A	$rangA = rangB = n$			
	B	$rangA \neq rangB$			
	C	$rangA = rangB > n$			
	D	$rangA = rangB < n$			
7.		Chiziqlitenglamalarsistemasiyagonayechimgaegabo'lsa, u qandaynomlanadi?	содда	6	LO3, LO5
	A	Aniqsistema			
	B	Aniqmassistema			
	C	Noma'lumsistema			
	D	Birgalikdabo'lmagansistema			
8.		$A = \begin{pmatrix} -1 & 4 & 2 & -2 \\ 3 & -8 & -5 & 3 \\ -1 & 8 & 3 & -5 \end{pmatrix}$ matritsarangini toping.	содда	6	LO3, LO5
	A	$rangA = 2$			
	B	$rangA = 3$			
	C	$rangA = 1$			
	D	$rangA = 4$			
9.		Chiziqlitenglamalarsistemasiyagonayechimgaegabo'lsa, u holdabusistema … deyiladi.	содда	6	LO3, LO5
	A	birgalikda			
	B	birgalikdaemas			

	C	aniqlanmagan			
	D	noaniq			
10.		$B=\begin{pmatrix}1 & -1 & 2 & 2\\ 0 & -1 & -1 & 2\\ -1 & 2 & 0 & -2\\ 1 & 2 & -2 & -1\end{pmatrix}$ $rang(B)$ ni hisoblang	sodda	6	LO3, LO5
	A	3			
	B	4			
	C	2			
	D	1			
11.		$B=\begin{pmatrix}1 & -1 & 2 & 2\\ 0 & -1 & -1 & 2\\ -1 & 2 & 0 & -2\\ 1 & 2 & -2 & -1\end{pmatrix}$ $rang(B^T)$ ni hisoblang	sodda	6	LO3, LO5
	A	4			
	B	3			
	C	2			
	D	1			
12.		Chiziqlitenglamalarsistemasibirgalikdabo'lishiuchunbusistemaningasosiy A vakengaytirilgan $\bar{A}$ matritsalariranglariorasidaqandayshartbajarilishikerak?	sodda	6	LO3, LO5
	A	$r(A)=r(\bar{A})$			
	B	$r(A)>r(\bar{A})$			
	C	$r(A)<r(\bar{A})$			
	D	$r(A)\neq r(\bar{A})$			

13.		$B=\begin{pmatrix}2 & 1 & 0\\ 1 & -1 & 1\\ 3 & 2 & 1\\ -4 & -2 & 0\end{pmatrix}$ $rang(B)$ ni hisoblang	содда	6	LO3, LO5
	A	4			
	B	3			
	C	1			
	D	2			
14.		$A=\begin{pmatrix}1 & -2 & 1 & 3\\ 3 & 1 & 0 & 7\\ 2 & 3 & -1 & 4\end{pmatrix}$ $rang(A)$ ni hisoblang	содда	6	LO3, LO5
	A	1			
	B	3			
	C	2			
	D	4			
15.		$A^T=\begin{pmatrix}1 & 3 & 2\\ -2 & 1 & 3\\ 1 & 0 & -1\\ 3 & 7 & 4\end{pmatrix}$ $rang(A^T)$ ni hisoblang	содда	6	LO3, LO5
	A	2			
	B	3			
	C	1			
	D	4			
16.		Tenglamlar sistemani yeching $\begin{cases}x_1+x_2+x_3=6\\ 2x_1-x_2+x_3=3.\\ x_1+x_2-x_3=0\end{cases}$	содда	6	LO3, LO5

	A	$\begin{cases} x_1 = 1 \\ x_2 = 2 \\ x_3 = 3 \end{cases}$			
	B	$\begin{cases} x_1 = 2 \\ x_2 = 1 \\ x_3 = 3 \end{cases}$			
	C	$\begin{cases} x_1 = 3 \\ x_2 = 2 \\ x_3 = 1 \end{cases}$			
	D	$\begin{cases} x_1 = 2 \\ x_2 = 3 \\ x_3 = 1 \end{cases}$			
17.		$A = \begin{pmatrix} 2 & 1 & -1 & 1 \\ 3 & -2 & 2 & -3 \\ 5 & 1 & -1 & 2 \\ 2 & -1 & 1 & -3 \end{pmatrix}$ A matrisarangi 6dan nechtakam	содда	6	LO3, LO5
	A	2			
	B	3			
	C	5			
	D	4			
18.		Tenglamalarsistemasinitekshiring: $\begin{cases} 2x_1 + 3x_2 - x_3 = 2, \\ 7x_1 + 4x_2 + 2x_3 = 8, \\ 3x_1 - 2x_2 + 4x_3 = 5. \end{cases}$	содда	6	LO3, LO5
	A	Sistema birgalikda			
	B	yechimga ega emas.			
	C	Sistema aniqlangan			

	D	Sistema aniqlanmagan			
19.		Sistemani yeching $\begin{cases} x_1 - x_2 + x_3 = 12, \\ 2x_1 + 3x_2 - x_3 = 13, \\ 3x_2 + 4x_3 = 5, \\ -3x_1 + x_2 + 4x_3 = -20. \end{cases}$	содда	6	LO3, LO5
	A	$x_1 = 1,\ x_2 = -1,$ $x_3 = 2$			
	B	$x_1 = 9,\ x_2 = -1,$ $x_3 = 2$			
	C	$x_1 = 9,\ x_2 = -5,$ $x_3 = 2$			
	D	$x_1 = 3,\ x_2 = -1,$ $x_3 = 2$			
20.		Tenglamalar sistemani nechtayechimgaega $\begin{cases} x_1 - 4x_2 + 2x_3 = -1, \\ 2x_1 - 3x_2 - x_3 - 5x_4 = -7, \\ 3x_1 - 7x_2 + x_3 - 5x_4 = -8. \end{cases}$	содда	6	LO3, LO5
	A	Sistema cheksizko'pyechigaega			
	B	sistema yechimga ega emas.			
	C	Yagonayechimga ega.			
	D	ikkitayechimga ega.			
21.		Sistemani yeching $\begin{cases} x_1 - x_2 + 2x_3 + 2x_4 = 2, \\ \quad - x_2 - x_3 + 2x_4 = 7, \\ -x_1 + 2x_2 \quad - 2x_4 = -7, \\ x_1 + 2x_2 - 2x_3 - x_4 = 1. \end{cases}$	содда	6	LO3, LO5
	A	$\{(1;-1;-2;2)\}$			
	B	$\{(2;-1;-2;1)\}$			

	C	$\{(1;-2;-1;2)\}$			
	D	$\{(1;-2;-2;1)\}$			
22.		Tenglamalar sistemasini yeching $\begin{cases} 3x_1+5x_2-4x_3+2x_4=9, \\ 5x_1+3x_2+2x_3-7x_4=-11, \\ 7x_1-4x_2+5x_3-3x_4=2, \\ 4x_1+2x_2-3x_3+4x_4=15. \end{cases}$	sodda	6	LO3, LO5
	A	$(1;3;2;4)$			
	B	$(1;2;3;4)$			
	C	$(4;2;3;1)$			
	D	$(1;4;3;1)$			
23.		Tenglamalar sistemanitekshiring $\begin{cases} 2x_1+x_2-x_3+x_4=1, \\ 3x_1-2x_2+2x_3-3x_4=2, \\ 5x_1+x_2-x_3+2x_4=-1, \\ 2x_1-x_2+x_3-3x_4=4. \end{cases}$	sodda	6	LO3, LO5
	A	sistemacheksizko'pyechigaega			
	B	sistema birgalikda			
	C	Sistema birgalikdaemas			
	D	Sistema aniqlanmagan.			
24.		Tenglamalar sistemani nechtayechimgaega $\begin{cases} 2x_1+x_2-4x_3-x_4=0, \\ x_1+x_2-3x_3=-1, \\ x_1+3x_2-7x_3+2x_4=-5, \\ 3x_1-x_2-x_3-4x_4=5. \end{cases}$	sodda	6	LO3, LO5
	A	Yagonayechimga ega.			

	B	ikkitayechimga ega.			
	C	Sistema cheksizko'pyechigaega			
	D	sistema yechimga ega emas.			
25.		$A=\begin{pmatrix}2&-4&3&1&0\\1&-2&1&-4&2\\0&1&-1&3&1\\4&-7&4&-4&5\end{pmatrix}$ $rang(A)$ *ni* hisoblang	содда	6	LO3, LO5
	A	3			
	B	2			
	C	1			
	D	4			
26.		$A=\begin{pmatrix}2&-4&3&1&0\\1&-2&1&-4&2\\0&1&-1&3&1\\4&-7&4&-4&5\end{pmatrix}$ $rang(A^T)$ *ni*	содда	6	LO3, LO5
	A	3			
	B	1			
	C	4			
	D	2			
27.		Tenglamalarsistemasiyechimgaegami? $\begin{cases}5x_1-x_2+2x_3+x_4=7,\\2x_1+x_2+4x_3-2x_4=1,\\x_1-3x_2-6x_3+5x_4=0.\end{cases}$	содда	6	LO3, LO5
	A	Sistema yechimga ega emas.			
	B	Sistemayagonayechimga emas.			
	C	Sistema aniqlanmagan			
	D	Sistema aniqlangan.			

28.		Tenglamalarsistemasinechtayechimgaega? $\begin{cases} 7x_1+3x_2=2, \\ x_1-2x_2=-3, \\ 4x_1+9x_2=11. \end{cases}$	содда	6	LO3, LO5
	A	Sistema yechimga ega emas.			
	B	Yagonayechimga ega.			
	C	Cheksizko'pyechigaega			
	D	Uchtayechimga ega.			
29.		Sistemani yeching $\begin{cases} 7x_1+3x_2=2, \\ x_1-2x_2=-3, \\ 4x_1+9x_2=11. \end{cases}$	содда	6	LO3, LO5
	A	$x_1=-\frac{5}{17};$ $x_2=\frac{2}{17}$			
	B	$x_1=-\frac{23}{17};\quad x_2=\frac{5}{17}$			
	C	$x_1=-\frac{5}{17};\quad x_2=\frac{23}{17}$			
	D	$x_1=\frac{5}{17};$ $x_2=\frac{21}{17}$			
30.		Ushbu $\begin{cases} x_1+x_2-3x_3=-1 \\ 2x_1+x_2-2x_3=1 \\ x_1+x_2+x_3=3 \\ x_1+2x_2-3x_3=1 \end{cases}$ sistema birgalikdami?	содда	6	LO3, LO5

	A	Sistema aniqlangan			
	B	Sistema birgalikda			
	C	sistema birgalikda emas.			
	D	Sistema aniqlanmagan			
31.		Ushbu $\begin{cases} x_1 - 2x_2 + x_3 + x_4 = 1, \\ x_1 - 2x_2 + x_3 - x_4 = -1, \\ x_1 - 2x_2 + x_3 + 5x_4 = 5 \end{cases}$ sistema birgalikdami?	ўртача	6	LO3, LO5
	A	Sistema birgalikda			
	B	sistema birgalikdaemas			
	C	Echimgaegaemas			
	D	Aniqlabbo'lmaydi			
32.		$A = \begin{pmatrix} 1 & -2 & 1 & 3 \\ 3 & 1 & 0 & 7 \\ 2 & 3 & -1 & 4 \end{pmatrix}$ $rang(A^T)$ ni hisoblang	ўртача	6	LO3, LO5
	A	1			
	B	4			
	C	3			
	D	2			
33.		$A^T = \begin{pmatrix} 1 & 3 & 2 \\ -2 & 1 & 3 \\ 1 & 0 & -1 \\ 3 & 7 & 4 \end{pmatrix}$	ўртача	6	LO3, LO5

		$rang(A)$ ni hisoblang			
	A	2			
	B	3			
	C	1			
	D	4			
34.		$B=\begin{pmatrix} 2 & 1 & 0 \\ 1 & -1 & 2 \\ 3 & 2 & 1 \\ 6 & 4 & 2 \end{pmatrix}$ $rang(B)$ ni hisoblang	ўртача	6	LO3, LO5
	A	4			
	B	3			
	C	1			
	D	2			
35.		Ushbu $\begin{cases} x_1+x_2-x_3=4, \\ 2x_1+4x_2+x_3=9, \\ x_1-x_2+x_3=-2 \\ 2x_1+5x_2-3x_3=15 \end{cases}$ tenglamalarsistemabirgalikdami?	ўртача	6	LO3, LO5
	A	sistemabirgalikdaemas			
	B	sistemabirgalikda			
	C	Echimgaegaemas			
	D	Aniqlabbo'lmaydi			
36.		Ushbutenglamalarsistemasiniyeching	ўртача	6	LO3, LO5

		$\begin{cases} x_1 + x_2 - x_3 = 4, \\ 2x_1 + 4x_2 + x_3 = 9, \\ x_1 - x_2 + x_3 = -2 \\ 2x_1 + 5x_2 - 3x_3 = 15 \end{cases}$			
	A	$x_1 = 1,$ $x_2 = 2,$ $x_3 = -1$			
	B	$x_1 = 2,$ $x_2 = 1,$ $x_3 = -1$			
	C	$x_1 = -1,$ $x_2 = 2,$ $x_3 = 1$			
	D	$x_1 = -1,$ $x_2 = 1,$ $x_3 = 2$			
37.		Tenglamalar sistemasi yechimlari yig‘indisini toping $\begin{cases} x_1 + x_2 + x_3 = 6 \\ 2x_1 - x_2 + x_3 = 3 \\ x_1 + x_2 - x_3 = 0 \end{cases}$.	ўртача	6	LO3, LO5
	A	5			
	B	7			
	C	6			
	D	8			
38.		Tenglamalar sistemasi yechimlari ko’paytmasini toping $\begin{cases} x_1 + x_2 + x_3 = 6 \\ 2x_1 - x_2 + x_3 = 3. \\ x_1 + x_2 - x_3 = 0 \end{cases}$	ўртача	6	LO3, LO5

	A	6			
	B	12			
	C	3			
	D	1			
39.		Tenglamalar sistemasi yechimlari yig‘indisi 12 danqanchakam? $\begin{cases} x_1 + x_2 + x_3 = 6 \\ 2x_1 - x_2 + x_3 = 3. \\ x_1 + x_2 - x_3 = 0 \end{cases}$	ўртача	6	LO3, LO5
	A	6			
	B	10			
	C	13			
	D	5			
40.		Tenglamlar sistemani yeching $\begin{cases} 2x_1 + 7x_2 + 13x_3 = 0, \\ 3x_1 + 14x_2 + 12x_3 = 18, \\ 5x_1 + 25x_2 + 16x_3 = 39, \\ x_1 + 14x_3 = -18. \end{cases}$.	ўртача	6	LO3, LO5
	A	$\begin{cases} x_1 = -4 \\ x_2 = 3 \\ x_3 = -1 \end{cases}$			
	B	$\begin{cases} x_1 = 4 \\ x_2 = -3 \\ x_3 = -1 \end{cases}$			
	C	$\begin{cases} x_1 = -1 \\ x_2 = 3 \\ x_3 = -4 \end{cases}$			

	D	$\begin{cases} x_1 = -1 \\ x_2 = 3 \\ x_3 = -4 \end{cases}$			
41.		Tenglamalarsistemani tekshiring $\begin{cases} x_1 + 2x_2 + 3x_3 = -1, \\ x_1 - 3x_2 - 2x_3 = 3, \\ 2x_1 - x_2 + x_3 = -2. \end{cases}$	ўртача	6	LO3, LO5
	A	Sistema aniqlanmagan			
	B	Yagonayechimgaega			
	C	yechimga ega emas.			
	D	Cheksizko'pyechigaega			
42.		Tenglamalarsistemani tekshiring $\begin{cases} 3x_1 - x_2 + 3x_3 + 14x_4 = 1, \\ 6x_1 - 2x_2 + 3x_3 + x_4 = -4, \\ 9x_1 - 3x_2 - 5x_3 + 6x_4 = -5. \end{cases}$	ўртача	6	LO3, LO5
	A	Cheksizko'pyechigaega			
	B	yechimga ega emas.			
	C	Sistema birgalikdaemas			
	D	$r(A) \neq r(\bar{A})$			
43.		Tenglamalar sistemani yeching: $\begin{cases} 3x_1 - x_2 + x_3 = 6, \\ x_1 - 5x_2 + x_3 = 12, \\ 2x_1 + 4x_2 = -6, \\ 2x_1 + x_2 + 3x_3 = 3, \\ 5x_1 + 4x_3 = 3. \end{cases}$	ўртача	6	LO3, LO5
	A	$\begin{cases} x_1 = 2 \\ x_2 = -2 \\ x_3 = 1 \end{cases}$			

	B	$\begin{cases} x_1 = 1 \\ x_2 = -2 \\ x_3 = 1 \end{cases}$			
	C	$\begin{cases} x_1 = 1 \\ x_2 = -2 \\ x_3 = 2 \end{cases}$			
	D	$\begin{cases} x_1 = 2 \\ x_2 = -1 \\ x_3 = 2 \end{cases}$			
44.		Tenglamalar sistemani tekshiring $\begin{cases} x_1 + 2x_2 - 3x_3 + 4x_4 = 7, \\ 2x_1 + 4x_2 + 5x_3 - x_4 = 2, \\ 5x_1 + 10x_2 + 7x_3 + 6x_4 = 11. \end{cases}$	ўртача	6	LO3, LO5
	A	Cheksizko'pyechigaega			
	B	yechimga ega emas.			
	C	Sistema birgalikdaemas			
	D	$r(A) \neq r(\bar{A})$			
45.		Tenglamalar sistemani tekshiring $\begin{cases} x_1 + 2x_2 - 3x_3 + 4x_4 = 1, \\ 2x_1 - x_2 + x_3 + 2x_4 = 2, \\ 4x_1 + 3x_2 - 5x_3 + 2x_4 = 4, \\ 7x_1 + 4x_2 - 7x_3 + 5x_4 = 7. \end{cases}$	ўртача	6	LO3, LO5
	A	Cheksizko'pyechigaega			
	B	yechimga ega emas.			
	C	Sistema birgalikdaemas			
	D	$r(A) \neq r(\bar{A})$			
41		Sistemani yeching:	мураккаб	6	LO3, LO5

		$\begin{cases} 2x_1+3x_2+2x_3=9, \\ x_1+2x_2+3x_3=14, \\ 3x_1+4x_2+x_3=16. \end{cases}$			
	A	$\begin{cases} x_1=2 \\ x_2=-2 \\ x_3=1 \end{cases}$			
	B	$\begin{cases} x_1=1 \\ x_2=-2 \\ x_3=1 \end{cases}$			
	C	$\begin{cases} x_1=1 \\ x_2=-2 \\ x_3=2 \end{cases}$			
	D	$\begin{cases} x_1=-1 \\ x_2=2 \\ x_3=2 \end{cases}$			
42		Tenglamalar sistemasi yechimlari yig‘indisi 10 danqanchakam? $\begin{cases} x_1+x_2+x_3=6, \\ 2x_1-x_2+x_3=3, \\ x_1+x_2-x_3=0. \end{cases}$	мураккаб	6	LO3, LO5
	A	4			
	B	5			
	C	6			
	D	3			
43.		Tenglamalarsistemani tekshiring $\begin{cases} 2x_1+3x_2-x_3=2, \\ 7x_1+4x_2+2x_3=8, \\ 3x_1-2x_2+4x_3=5. \end{cases}$	мураккаб	6	LO3, LO5

	A	yechimga ega emas.			
	B	Yagonayechimga ega			
	C	Cheksizko'pyechigaega			
	D	$r(A) > r(\bar{A})$			
44.		Tenglamalar sistemani tekshiring: $\begin{cases} 2x_1 + 3x_2 - x_3 = 2, \\ 7x_1 + 4x_2 + 2x_3 = 8, \\ 3x_1 - 2x_2 + 4x_3 = 5. \end{cases}$	мураккаб	6	LO3, LO5
	A	$r(A) \neq r(\bar{A})$			
	B	$r(A) = r(\bar{A})$			
	C	$r(A) < r(\bar{A})$			
	D	$r(A) > r(\bar{A})$			
45.		Tenglamalar sistemani tekshiring: $\begin{cases} x_1 - x_2 + x_3 = 12, \\ 2x_1 + 3x_2 - x_3 = 13, \\ 3x_2 + 4x_3 = 5, \\ 3x_1 + x_2 + 4x_3 = -20. \end{cases}$	мураккаб	6	LO3, LO5
	A	Yagonayechimga ega			
	B	Cheksizko'pyechigaega			
	C	Sistema aniqlanmagan			
	D	Sistema birgalikdaemas			
46.		Tenglamalar sistemani yeching: $\begin{cases} x_1 - x_2 + x_3 = 12, \\ 2x_1 + 3x_2 - x_3 = 13, \\ 3x_2 + 4x_3 = 5, \\ 3x_1 + x_2 + 4x_3 = -20. \end{cases}$	мураккаб	6	LO3, LO5

	A	$\begin{cases} x_1 = 9, \\ x_2 = -3, \\ x_3 = 2. \end{cases}$			
	B	$\begin{cases} x_1 = 3, \\ x_2 = -1, \\ x_3 = 2. \end{cases}$			
	C	$\begin{cases} x_1 = 9, \\ x_2 = -1, \\ x_3 = 2. \end{cases}$			
	D	$\begin{cases} x_1 = 9, \\ x_2 = -1, \\ x_3 = 3. \end{cases}$			
47.		Tenglamalar sistemani tekshiring $\begin{cases} x_1 - 4x_2 + 2x_3 = -1, \\ 2x_1 - 3x_2 - x_3 - 5x_4 = -7, \\ 3x_1 - 7x_2 + x_3 - 5x_4 = -8. \end{cases}$	мураккаб	6	LO3, LO5
	A	Cheksizko'pyechigaega			
	B	Yagonayechimga ega			
	C	Yagonayechimga ega			
	D	Sistema aniqlangan			
48.		Tenglamalar sistemani tekshiring $\begin{cases} x_1 - 4x_2 + 2x_3 = -1, \\ 2x_1 - 3x_2 - x_3 - 5x_4 = -7, \\ 3x_1 - 7x_2 + x_3 - 5x_4 = -8. \end{cases}$	мураккаб	6	LO3, LO5
	A	$r(A) \neq r(\bar{A})$			
	B	$r(A) = r(\bar{A})$			
	C	$r(A) > r(\bar{A})$			
	D	$r(A) < r(\bar{A})$			

49.		Tenglamalar sistemani tekshiring $\begin{cases} x_1 - 4x_2 + 2x_3 = -1, \\ 2x_1 - 3x_2 - x_3 - 5x_4 = -7, \\ 3x_1 - 7x_2 + x_3 - 5x_4 = -8. \end{cases}$	мураккаб	6	LO3, LO5
	A	Sistema aniqlanmagan			
	B	Sistema aniqlangan			
	C	Sistema birgalikdaemas			
	D	$r(A) \neq r(\bar{A})$			
50.		Tenglamalar sistemani yeching $\begin{cases} x_1 + 2x_2 + x_3 + x_4 = 5, \\ x_2 + x_3 + x_4 = 3, \\ x_1 + x_2 = 2. \end{cases}$	мураккаб	6	LO3, LO5
	A	Cheksizko'pyechigaega			
	B	yechimga ega emas.			
	C	Yagonayechimga ega			
	D	$r(A) \neq r(\bar{A})$			

№	Жавоб вариантлари	Савол	Қийинлик даражаси	Саволнинг шаблондаги рақами	Текширилаётган таълим натижалари
46.		Quyidagi $\vec{a}=\{2,3,4\}$, $\vec{b}=\{2,3,4\}$, $\vec{c}=\{1,2,3\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
47.		Quyidagi $\vec{a}=\{5,6,7\}$, $\vec{b}=\{5,6,7\}$, $\vec{c}=\{3,4,5\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
48.		Quyidagi $\vec{a}=\{3,1,2\}$, $\vec{b}=\{3,1,2\}$, $\vec{c}=\{2,6,4\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
49.		Quyidagi $\vec{a}=\{3,5,7\}$, $\vec{b}=\{3,1,2\}$, $\vec{c}=\{6,2,4\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
50.		Quyidagi $\vec{a}=\{3,5,6\}$, $\vec{b}=\{3,3,1\}$, $\vec{c}=\{0,0,0\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
51.		Quyidagi $\vec{a}=\{2,1,2\}$, $\vec{b}=\{3,4,5\}$, $\vec{c}=\{6,3,6\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
52.		Quyidagi $\vec{a}=\{3;1\}$, $\vec{b}=\{0;1\}$, $\vec{c}=\{3;2\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
53.		Quyidagi $\vec{a}=\{2;1\}$, $\vec{b}=\{5;6\}$, $\vec{c}=\{7;8\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
54.		Quyidagi $\vec{a}=\{1;3\}$, $\vec{b}=\{3;9\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
55.		Quyidagi $\vec{a}=\{1,0,0\}$, $\vec{b}=\{0,1,0\}$, $\vec{c}=\{0,0,1\}$, $\vec{d}=\{0,1,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
56.		Quyidagi $\vec{a}=\{3,1,2\}$, $\vec{b}=\{3,4,5\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
57.		Quyidagi $\vec{a}=\{1,2,5\}$, $\vec{b}=\{7,8,9\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			

	C	Basis			
	D	To`g'ri javob yo'q			
58.		Quyidagi $\vec{a}=\{4,5,3\}$, $\vec{b}=\{4,3,5\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
59.		Quyidagi $\vec{a}=\{0,1,0\}$, $\vec{b}=\{0,1,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
60.		Quyidagi $\vec{a}=\{1,0,0\}$, $\vec{b}=\{0,1,0\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
61.		Quyidagi $\vec{a}=\{0,1,0\}$, $\vec{b}=\{0,0,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
62.		Quyidagi $\vec{a}=\{1,2\}$, $\vec{b}=\{3,4\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
63.		Quyidagi $\vec{a}=\{0,1\}$, $\vec{b}=\{1,0\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog'liq			
	B	Chiziqli bog'liq emas			
	C	Basis			
	D	To`g'ri javob yo'q			
64.		Quyidagi $\vec{a}=\left\{\frac{1}{2},0\right\}$, $\vec{b}=\left\{0,\frac{1}{2}\right\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
65.		Quyidagi $\vec{a}=\left\{\frac{1}{2},0\right\}$, $\vec{b}=\left\{3,\frac{1}{3}\right\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli bog’liq emas			
	C	Basis			
	D	To`g’ri javob yo’q			
66.		Quyidagi $\vec{a}=\{3,2,1\}$, $\vec{b}=\{1,2,0\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g’ri javob yo’q			
67.		Quyidagi $\vec{a}=\{1,0,0\}$, $\vec{b}=\{0,1,0\}$, $\vec{c}=\{0,0,1\}$, $\vec{d}=\{0,1,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g’ri javob yo’q			
68.		Quyidagi $\vec{a}=\{5,2\}$, $\vec{b}=\{2,3\}$, $\vec{c}=\{1,0\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g’ri javob yo’q			
69.		Quyidagi $\vec{a}=\{6,1\}$, $\vec{b}=\{1,6\}$, $\vec{c}=\{6,6\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g’ri javob yo’q			
70.		Quyidagi $\vec{a}=\{0,1,0\}$, $\vec{b}=\{0,0,1\}$, $\vec{c}=\{0,2,0\}$	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

		vektorlar sistemasi qanday shartni qanoatlantiradi?			
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g'ri javob yo'q			
71.		Quyidagi $\vec{a}=\{1,2,3\}$, $\vec{b}=\{2,4,6\}$, $\vec{c}=\{7,8,9\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g'ri javob yo'q			
72.		Quyidagi $\vec{a}=\{4,2,3\}$, $\vec{b}=\{2,4,6\}$, $\vec{c}=\{6,6,9\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g'ri javob yo'q			
73.		Quyidagi $\vec{a}=\{2,7,5\}$, $\vec{b}=\{1,1,3\}$, $\vec{c}=\{3,8,8\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g'ri javob yo'q			
74.		Quyidagi $\vec{a}=\{1,2,1\}$, $\vec{b}=\{3,1,2\}$, $\vec{c}=\{5,5,4\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			
	D	To`g'ri javob yo'q			
75.		Quyidagi $\vec{a}=\{5,3,1\}$, $\vec{b}=\{1,-1,2\}$, $\vec{c}=\{7,1,5\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bazis tashkil qilmaydi			
	B	Basis tashlik qiladi			
	C	Normalangan sistema			

	D	To`g'ri javob yo'q			
76.		Quyidagi $\vec{a}=\{1,0,0\}$, $\vec{b}=\{0,1,0\}$, $\vec{c}=\{0,1,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
77.		Quyidagi $\vec{a}=\{1,0,0\}$, $\vec{b}=\{0,1,0\}$, $\vec{c}=\{1,0,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
78.		Quyidagi $\vec{a}=\{5,6,0\}$, $\vec{b}=\{0,4,0\}$, $\vec{c}=\{0,1,2\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
79.		Quyidagi $\vec{a}=\{0,0,5\}$, $\vec{b}=\{0,3,5\}$, $\vec{c}=\{7,0,0\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
80.		Quyidagi $\vec{a}=\{1,1,0\}$, $\vec{b}=\{0,1,1\}$, $\vec{c}=\{1,0,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
81.		Quyidagi	содда	1	LO12, T2.2, T5.1, T5.2, T5.3

		$\vec{a}=\left\{8,\frac{1}{3},\frac{1}{3}\right\}$, $\vec{b}=\left\{\frac{1}{4},7,\frac{1}{4}\right\}$, $\vec{c}=\left\{\frac{1}{4},\frac{1}{4},9\right\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?			
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
82.		Quyidagi $\vec{a}=\{0,0,-7\}$, $\vec{b}=\{-3,6,0\}$, $\vec{c}=\{2,3,4\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
83.		Quyidagi $\vec{a}=\{9,3,1\}$, $\vec{b}=\{1,9,2\}$, $\vec{c}=\{1,1,8\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
84.		Quyidagi $\vec{a}=\{7,1,2\}$, $\vec{b}=\{1,8,2\}$, $\vec{c}=\{2,2,9\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
85.		Quyidagi $\vec{a}=\{1,9,2\}$, $\vec{b}=\{1,1,8\}$, $\vec{c}=\{9,3,1\}$ vektorlar sistemasi qanday shartni qanoatlantiradi?	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Basis tashlik qiladi			
	B	Bazis tashkil etmaydi			
	C	Chiziqli bog'liq			
	D	To`g'ri javob yo'q			
41.		$\vec{a}=\{2,3,4\}$, $\vec{b}=\{5,6,7\}$, $\vec{c}=\{6,9,12\}$ vektor fazoning o'lchovini toping.	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3

	A	2			
	B	3			
	C	1			
	D	4			
42.		$\vec{a}=\{8,1,1\}$, $\vec{b}=\{2,0,1\}$, $\vec{c}=\{1,0,7\}$ vektor fazoning o'lchovini toping.	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	2			
	C	1			
	D	4			
43.		$\vec{a}=\{5,6,0\}$, $\vec{b}=\{0,3,0\}$, $\vec{c}=\{2,7,0\}$ vektor fazoning o'lchovini toping.	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	3			
	C	1			
	D	4			
44.		$\vec{a}=\{5,6,0\}$, $\vec{b}=\{0,4,0\}$, $\vec{c}=\{0,1,2\}$ vektor fazoning o'lchovini toping.	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	2			
	C	1			
	D	4			
45.		$\vec{a}=\{1,0,0\}$, $\vec{b}=\{0,1,0\}$, $\vec{c}=\{0,1,1\}$ vektor fazoning o'lchovini toping.	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	2			
	C	1			
	D	4			
46.		Barcha $n\times n$ matritsalar fazosining o'lchovi nimaga teng?	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	n^2			
	B	n^3			
	C	n			
	D	To`g'ri javob yo'q			
47.		Barcha $n\times n$ dioganal matritsalar fazosining o'lchovi nimaga teng?	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	n			
	B	n^3			
	C	n^2			
	D	To`g'ri javob yo'q			
48.		Barcha $n\times n$ uchburchakli matritsalar fazosining o'lchovi nimaga teng?	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3

	A	$\frac{n^2+n}{2}$			
	B	$\frac{n^3+n}{2}$			
	C	$\frac{n^2+n}{3}$			
	D	$\frac{n^2+1}{2}$			
49.		Barcha $n\times n$ simmetrik matritsalar fazosining o'lchovi nimaga teng?	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\frac{n^2+n}{2}$			
	B	$\frac{n^3+n}{3}$			
	C	$\frac{n^2+n}{3}$			
	D	$\frac{n^2+1}{2}$			
50.		$m,n\in R$ da barcha mumkin bo'lgan $y=m\sin x+n\cos x$ funksiyalarning o'lchovi nimaga teng?	murakkab	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	3			
	C	4			
	D	1			

8-mavzu

№	Жавоб вариантлари	Савол	Қийинлик даражаси	Саволнинг шаблондаги рақами	Текширилаётган таълим натижалари
1.		$\vec{a}(1,2,3)$, $\vec{b}(-1,0,3)$, $\vec{c}(2,1,-1)$ vektorlar bazis tashkil qilsin. Bu bazisda $\vec{d}$ vector koordinatalarini niqlang.	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{d}\left\{-\frac{1}{4},\frac{7}{4},\frac{5}{2}\right\}$,			
	B	$\vec{d}\left\{\frac{1}{4},-\frac{7}{4},\frac{5}{2}\right\}$			
	C	$\vec{d}\left\{\frac{1}{4},\frac{7}{4},-\frac{5}{2}\right\}$			
	D	Ma’lumotlar yetarli emas			
2.		$\{x_\alpha\}$ nol vektorlar sistemasi ixtiyoriy evklid fazoda orthogonal bo’ladi, agar	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(x_\alpha, x_\beta)=0$ agar $\alpha \neq \beta$			
	B	$(x_\alpha, x_\beta)=1$ agar $\alpha \neq \beta$			
	C	$(x_\alpha, x_\beta)\neq 0$			
	D	$(x_\alpha, x_\beta)\neq 1$			
3.		Koshi Bunyaqovskiy tengsizligi-bu	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\left\|(\vec{a},\vec{b})\right\| \leq \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	B	$\left\|(\vec{a},\vec{b})\right\| > \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	C	$\left\|(\vec{a},\vec{b})\right\| \geq \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	D	$\left\|(\vec{a},\vec{b})\right\| < \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
4.		Koshi Bunyaqovskiy tengsizligi bajariladi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Ixtiyoriy evklid fazosidagiixtiyoriy vektorlar uchun;			
	B	Ixtiyoriy evklid fazosidagiqandaydir vektorlar uchun;			

	C	Qandaydir evklid fazosidagiixtiyoriy vektorlar uchun;			
	D	Qandaydir evklid fazosidagi qandaydir vektorlar uchun;			
5.		Ushbu $\overset{1}{a}$ orthogonal to'ldiruvchi vektorga vektorlar to'plami deyiladi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$a^{\perp}=\{b\in E: b\perp a\}$			
	B	$a^{\perp}=\{b\in E:[a,b)=0\}$			
	C	$a^{\perp}=\{b\notin E: a\perp b=0\}$			
	D	$a^{\perp}=\{b\in E:(a,b)\neq 0\}$			
6.		Nol vector:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Evklid fazosida ixtiyoriy vectorga ortogonal			
	B	Evklid fazosida birlik vektorga orthogonal			
	C	Evklid fazosida hech bir vektorga orthogonalemas			
	D	Uzunligi $\neq 1$ faqat bitta vektorga orthogonal			
7.		Har qanday vektorga orthogonal to'ldiruvchi hisoblanadi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Chiziqli fazo osti			
	B	Chiziqli qobiq			
	C	Fazo			
	D	To'plam			
8.		Ushbu M to'plam orthogonal to'ldiruvchi deyiladi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	vektorlar to'plami $M^{\perp}=\{a\in E: b\in M\Rightarrow a\perp b\}$			
	B	vektorlar to'plami $M^{\perp}=\{a\in M: b\in E\Rightarrow a\perp b\}$			
	C	vektorlar to'plami $M^{\perp}=\{a\in E: b\in M\Rightarrow a\perp b\}$			
	D	vektorlar to'plami $M^{\perp}=\{a\in M: b\in M\Rightarrow a\perp b\}$			

9.		$\vec{b}$ vektor M to'plamga orthogonal, agar (ya'ni $b \perp M$)	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}$ vektor M dagi ixtiyoriy vektorga orthogonal			
	B	$\vec{b}$ vector M dagi faqat nol vektorga orthogonal			
	C	$\vec{b}$ vector M dagi faqat birlik vektorga orthogonal			
	D	$\vec{b}$ vector M dagi faqat $\neq 1$ vektorga orthogonal			
10.		Evklid fazosining vektori uning fazo ostisiga orthogonal bo'ladi faqat qachonki	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Bu fazo ostidagi qandaydir bazis har bir vektoga ortogonal			
	B	bu fazo ostidagi basislardan biri qandaydir vectorga orthogonal			
	C	bu fazo ostidagi ixtiyoriy basis bu vektordan biriga orthogonal			
	D				
11.		$L \in E$ (E Evklid fazosi) $\vec{a}$ vektorning chiziqli fazo ostiga ortogonal proeksiyasi $\Pr_L a$ bu:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b} \in L$ vector va shunday $a-b \perp L$ $(a-b \in L)$			
	B	$\vec{b} \in E$ vector va shunday $a \perp b$ $(a \in E)$			
	C	$\vec{a}-\vec{b}=\vec{c} \in \alpha$, $a \in L, b \in E$ vector			
	D	$\vec{b} \in E$ vector va shunday $\vec{a}-\vec{b} \perp E$ $(\vec{a}-\vec{b} \in E)$			
12.		Ikki o'zaro ortogonal fazo kesishadi faqat:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Nol vektor bo'yicha			
	B	Ixtiyoriy vektor bo'yicha			
	C	Birlik vektor bo'yicha			
	D	Uzunligi 0ga teng bo'lmagan ixtiyoriy vector bo'yicha			

13.		$\vec{a}_1(1,0,2,1)^T$, $\vec{a}_2(2,1,2,3)^T$, $\vec{a}_3(0,1,-2,1)^T$ vektorlarning chiziqli qobig'i bo'lgan α fazo ostisining ortogonal to'ldiruvchisining bazisini toping	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{e}_1 = \begin{pmatrix} -2 \\ 2 \\ 1 \\ 0 \end{pmatrix}$, $\vec{e}_2 = \begin{pmatrix} -1 \\ -1 \\ 0 \\ 1 \end{pmatrix}$			
	B	$\vec{e}_1 = \begin{pmatrix} -2 \\ 2 \\ 1 \\ 2 \end{pmatrix}$, $\vec{e}_2 = \begin{pmatrix} 0 \\ 1 \\ -1 \\ -1 \end{pmatrix}$			
	C	$\vec{e}_1 = \begin{pmatrix} 2 \\ 0 \\ 1 \\ -2 \end{pmatrix}$, $\vec{e}_2 = \begin{pmatrix} -1 \\ 1 \\ 0 \\ -1 \end{pmatrix}$			
	D	$\vec{e}_1 = \begin{pmatrix} 0 \\ 1 \\ -2 \\ 2 \end{pmatrix}$, $\vec{e}_2 = \begin{pmatrix} 1 \\ 0 \\ -1 \\ -1 \end{pmatrix}$			
14.		Evklid fazo ostisi deyiladi	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Skalyar ko'paytma bilan berilgangan chiziqli fazo			
	B	Qo'shish amali bilan berilgangan ixtiyoriy chiziqli fazo			
	C	O'zgarmasga ko'paytirshish amali bilanberilgangan ixtiyoriy chiziqli fazo			
	D	Ixtiyoriy fazo Evklid fazo deyiladi			
15.		Ixtiyoriy chiziqli fazoda V skalyar ko'paytmabu:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	V da berilgangan ikkita vektor o'zgaruv-chisining bichiziqli, simmetrik va musbat aniqlangan funktsiyasi			
	B	V da berilgangan ikkita vektor o'zgaruv-chisining bichiziqli musbat aniqlangan			

		funktsiyasi			
	C	V da berilgangan ikkita vektor o'zgaruv-chisining simmetrik va musbat aniqlangan funktsiyasi			
	D	V da berilgangan ikkita vektor o'zgaruv-chisining bichiziqli, simmetrik va aniqlangan funktsiyasi			
16.		Xuddi shu V chiziqli fazoda mumkin:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Har xil skalyar ko'paytmada berish va uni turli xil Evklid fazolarida aylantirish			
	B	Har xil skalyar ko'paytmada berish va uni xuddi shu E Evklid fazolarida aylantirish			
	C	Bir xil skalyar ko'paytmada berish va uni turli xil Evklid fazolarida aylantirish			
	D	Skalyar ko'paytmani har doim bermaydi			
17.		Evklid fazosida ixtiyoriy ikkita $\vec{a}$ va $\vec{b}$ vektor uchun quyidagilar to'g'ri bo'ladi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\left\|\left(\vec{a},\vec{b}\right)\right\| \le \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	B	$\left\|\left(\vec{a},\vec{b}\right)\right\| > \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	C	$\left\|\left(\vec{a},\vec{b}\right)\right\| \ge \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	D	$\left\|\left(\vec{a},\vec{b}\right)\right\| < \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
18.		Koshi-Bunyakovskiy tengsizlikda $\left\|\left(\vec{a},\vec{b}\right)\right\| \le \left\|\vec{a}\right\|\left\|\vec{b}\right\|$, teng belgiga erishilganda	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{a}$ ва $\vec{b}$ - kollinear bo'lganda			
	B	$\vec{a}$ ва $\vec{b}$ - komplanar bo'lganda			
	C	$\vec{a}$ ва $\vec{b}$ - ortogonal bo'lganda			
	D	Ixtiyoriy yol bo'lmagan $\vec{a}$ ва $\vec{b}$ uchun			
19.		Ixtiyoriy Evklid fazosi E dan olinga ixtiyoriy ikkita $\vec{a}$ ва $\vec{b}$ vektor uchun quyidagilar o'rinli bo'ladi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\left\|\left(\vec{a},\vec{b}\right)\right\| \le \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	B	$\left\|\left(\vec{a},\vec{b}\right)\right\| > \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			

	C	$\left\|\left(\vec{a},\vec{b}\right)\right\| \geq \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
	D	$\left\|\left(\vec{a},\vec{b}\right)\right\| < \left\|\vec{a}\right\|\left\|\vec{b}\right\|$			
20.		$\vec{a}_1, \vec{a}_2, ..., \vec{a}_n$ vektorlar sistemasi orthogonal deyiladi, agar:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Ushbu tizimning har bir vektori ushbu tizimning boshqa har qanday vektoriga nisbatan ortogonaldir:			
	B	Boshqalari uchun ortogonal bo'lgan tizimning bir necha vektorlari yopiladi			
	C	Qolganlari uchun orthogonal bo'lgan ushbu tizimda bitta vektor topiladi			
	D	Har bir vektorning uzunligi 1 ga teng			
21.		Har qanday nol bo'lmagan vektorlarning ortogonal tizimi	содда	1	LO12, T2.2, T5.1, T5.2, T5.
	A	Chiziqli erkli			
	B	Chiziqli bo'g'liq			
	C	Chiziqli erkli yokichiziqli bo'g'liq bo'lishi mumkin			
	D	Orthnormallangan			
22.		Ixtiyoriy $\vec{a}_1, \vec{a}_2, ..., \vec{a}_n$ ortogonal tizimlar uchun o'rinli bo'ladi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\left\|\vec{a}_1, \vec{a}_2, ..., \vec{a}_n\right\|^2 = \left\|\vec{a}_1\right\|^2 + \left\|\vec{a}_2\right\|^2 + ... + \left\|\vec{a}_n\right\|^2$			
	B	$\left\|\vec{a}_1, \vec{a}_2, ..., \vec{a}_n\right\|^2 < \left\|\vec{a}_1\right\|^2 + \left\|\vec{a}_2\right\|^2 + ... + \left\|\vec{a}_n\right\|^2$			
	C	$\left\|\vec{a}_1, \vec{a}_2, ..., \vec{a}_n\right\|^2 > \left\|\vec{a}_1\right\|^2 + \left\|\vec{a}_2\right\|^2 + ... + \left\|\vec{a}_n\right\|^2$			
	D	$\left\|\vec{a}_1, \vec{a}_2, ..., \vec{a}_n\right\|^2 \leq \left\|\vec{a}_1\right\|^2 + \left\|\vec{a}_2\right\|^2 + ... + \left\|\vec{a}_n\right\|^2$			
23.		Ushbu $\vec{a}$ vektorga ortogonal to'ldiruvchi Evklid fazosi vektorlari to'plami deyiladi	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{a}^{\perp} = \left\{b \in E : \vec{b} \perp \vec{a}\right\}$			
	B	$\vec{a}^{\perp} = \left\{b \notin E : \vec{b} \perp \vec{a}\right\}$			

	C	$\vec{a}^{\perp} = \left\{ b \in E : \vec{b} \text{ P} \vec{a} \right\}$			
	D	$\vec{a}^{\perp} =$ {ixtiyoriy bo′sh bo′lmagan to′plam $A \subset E$			
24.		Berilgan M vektorlar to'plamiga ortogonal to'ldiruvchi E Evklid fazosining vektorlari to'plami deyiladi	содда	1	LO12, T2.2,T5.1, T5.2, T5.3
	A	$M^{\perp} = \left\{ \vec{a} \in E : \vec{b} \in M \Rightarrow \vec{a} \perp \vec{b} \right\}$			
	B	$M^{\perp} = \left\{ \vec{a} \notin E : \vec{b} \in M \Rightarrow \vec{a} \perp \vec{b} \right\}$			
	C	$M^{\perp} = \left\{ \vec{a} \notin M : \vec{b} \in E \Rightarrow \vec{a} \perp \vec{b} \right\}$			
	D	$M^{\perp} = \left\{ \vec{a} \in M : \vec{b} \notin E \Rightarrow \vec{a} \perp \vec{b} \right\}$			
25.		Munosabatlarning qaysi biri to'g'ri (E - Evklid fazosi)	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing^{\perp} = E$			
	B	$E^{\perp} = E$			
	C	$E^{\perp} = \{1\}$			
	D	$E^{\perp} = \varnothing$			
26.		$\vec{a}_1, \vec{a}_2, ..., \vec{a}_n$ vektor sistemasi $\vec{b}$ vektorlarning chiziqli qobig'iga orthogonal bo'ladi qachonki	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\vec{b}$ vektor bu sistemadagi har bir vektorga ortogonal			
	B	$\vec{b}$ vektor bu sistemadagi faqat bitta vektorga ortogonal			
	C	$\vec{b}$ vektor bu sistemadagi faqat bir qancha vektorlarga orthogonal			
	D	$\vec{b}$ vektor bu sistemadagi uzunligi 1 ga teng bo'lgan vektorga orthogonal			
27.		Vektor fazo ostiga ortogonal bo'ladi, qachonki agar:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Ushbu fazo ostining qandaydir bazisi har qanday vektorga nisbatan ortogonal			

	B	Hech bo'lmaganda ushbu fazo ostining bazislaridan biri, bir nechta vektorga ortogonal			
	C	Ushbu fazo ostigi har qanday bazis bitta vektoriga ortogonal			
	D	Faqat birlik uzunligiga ega bo'lgan bazis vektorlarga ortogonal			
28.		Agar vektorlar tizimi chiziqli erkli bo'lsa, uning Gram matritsasi:	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	Asosiy bo'lmagan			
	B	Asosiy			
	C	Dioganal			
	D	Birlik			
29.		A: L → L chiziqli operatorining xos l qiymatiga mos keladigan xos vektorlar to'plami L da	содда	1	LO12, T2.2, T5.1, T5.2, T5.3
	A	chiziqli fazo osti			
	B	Faqat ko'paytirish amaliga nisbatan aniqlangan fazo osti			
	C	Faqat ko'shishga amaliga nisbatan aniqlangan fazo osti			
	D	Bo'sh to'plam			
30.		Gram matritsasining elementi formula bo'yicha aniqlanadi	легкий	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	$g_{ij} = (e_i, e_j).$			
	B	$(e_{i+j}, e_j),$			
	C	$(e_i, e_j)^{-1},$			
	D	$g_{ij} = (e_i, e_j)^2,$			
31.		$a_1, a_2, a_3 : a_1 = (1,0,2,1),\ a_2 = (2,1,2,3)$ $, a_3 = (0,1,-2,1)$. Vektorlarga ustiga qurilgan$\mathcal{L}$ fazo ostisi$\mathcal{L}^{\perp}$ orthogonal	сложный	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3

		to’ldiruvchning bazisini toping			
	A	$\mathcal{L}^{\perp} = \langle b_1, b_2 \rangle = \langle (2,-2,-1,0),(1,1,0,-1) \rangle$.			
	B	$\mathcal{L}^{\perp} = \langle b_1, b_2 \rangle = \langle (-1,-2,2,0),(1,0,-1,0) \rangle$,			
	C	$\mathcal{L}^{\perp} = \langle b_1, b_2 \rangle = \langle (-2,-1,0,2),(0,-1,0,1) \rangle$,			
	D	$\mathcal{L}^{\perp} = \langle b_1, b_2 \rangle = \langle (-2,-2,-1,0),(1,0,-1,1) \rangle$			
32.		$a_1 = (1,1,1,1), a_2 = (-1,1,-1,1)$, $a_3 = (2,0,2,0)$. Vektorlarga ustiga qurilgan$\mathcal{L}$ fazo ostisi ortogonal to’ldiruvchni toping	сложный	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	$\mathcal{L}^{\perp} = \langle c_1, c_2 \rangle = \langle (-1,0,1,0),(0,-1,0,1) \rangle$.			
	B	$\mathcal{L}^{\perp} = \langle (-1,0,0,1),(0,-1,1,0) \rangle$,			
	C	$\mathcal{L}^{\perp} = \langle (0,0,1,-1),(0,-1,1,0) \rangle$,			
	D	$\mathcal{L}^{\perp} = \langle (0,-1,0,1),(1,0,-1,0) \rangle$,			
33.		$a_1 = (2,-2,-2,2), a_2 = (3,-1,-1,3)$, $a_3 = (2,-2,0,4)$. Ushbu fazo ostisi bazisidan foydalanib ortogonal bazisni toping	сложный	1	LO1,LO5,LO7,LO8 ,LO9, , T5.1, T5.2, T5.3
	A	$b_1 = (2,-2,-2,2), b_2 = (1,1,1,1)$, $b_3 = (-1,-1,1,1)$.			
	B	$b_1 = (-2,-2,2,2), b_2 = (1,1,1,1)$, $b_3 = (1,-1,1,-1)$,			
	C	$b_1 = (2,-2,2,-2), b_2 = (1,1,1,1)$, $b_3 = (-1,1,-1,1)$,			
	D	$b_1 = (2,-2,-2,2), b_2 = (1,1,1,1)$, $b_3 = (1,-1,-1,1)$,			
34.		Funktsiyalar skalyar ko’paytmalaridan tashkil topgan Gramm aniqlovchi nolga teng bo’ladi, qachonki sistemaning $u_1, u_2, \ldots, u_n$ funksiyalari	легкий	1	LO1,LO5,LO7,LO8 ,LO9, T5.2, T5.3
	A	Chiziqli bog’liq			
	B	Chiziqli erkli			

	C	Oddiy			
	D	Gram aniqlovchi bu funktsiyalar tizimiga bog'liq emas.			
35.		Har qanday vektor tizimining gramm aniqlovchi	легкий	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	Har doim noldan katta yoki teng.			
	B	Har doim noldan katta			
	C	Har doim ham nolga teng emas			
	D	har qanday qiymatni olishi mumkin			
36.		Evklid fazosining nol bo'lmagan elementlarining (vektorlarining) har qanday ortogonal tizimi	легкий	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	Chiziqli erkli			
	B	Chiziqli bo’g’liq			
	C	Chiziqli erkli yokichiziqli bo’g’liq bo’lishi mumkin			
	D	Orthnormallangan			
37.		Eng kichik kvadratlar usulida taxminiy funktsiyaning parametrlari shartdan aniqlanadi:	легкий	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	Taxminan yaqinlashuvchi intervaldan cheklangan nuqtalar to'plamiga yaqinlashuvchi funktsiyaning minimal kvadratlar yig’indisi qiymati.			
	B	Yaqinlashayotgan funksiyaning taxminiy interval bilan taxmin qilingan funktsiyadan minimal maksimal og'ishi			
	C	Yaqinlashuv oralig'idagi cheklangan nuqtalar to'plamidagi yaqinlashuvchi va yaqinlashuvchi funktsiyalarning tengligi			
	D	Yaqinlashuv oralig'idan cheklangan nuqtalar to'plamidagi yaqinlashuvchi va yaqinlashtiruvchi funktsiyalarning og'ish modulining minimal o'rtacha qiymati			

38.		normal tenglamalar sistemasining matritsasi deyiladi	легкий	1	LO1,LO5,LO7, LO8,LO9, 5.1, T5.2, T5.3
	A	Gramm matritsasi			
	B	Dioganal matritsasi			
	C	Birlik matritsasi			
	D	Vandermonda matritsasi			
39.		$\mathcal{L}$chiziqli fazo quyidagi sistema bilan berilgan: $\begin{cases} 2x_1 + x_2 + 3x_3 - x_4 = 0 \\ 3x_1 + 2x_2 - 2x_4 = 0 \\ 3x_1 + x_2 + 9x_3 - x_4 = 0 \end{cases}$ $\mathcal{L}^{\perp}$ ortogonal to'diruvchi bazisini toping	сложный	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	$f_1 = (1,0,6,0)^T$, $f_2 = (-3,-2,0,2)^T$.			
	B	$f_1 = (0,1,0,6)^T$, $f_2 = (-2,0,-3,2)^T$,			
	C	$f_1 = (1,0,6,0)^T$, $f_2 = (3,-2,2,0)^T$,			
	D	$f_1 = (0,1,6,0)^T$, $f_2 = (3,-2,0,2)^T$,			
40.		Evklid fazosining chiziqli fazo ostisi ko'rsatilgan xususiyatlardan qaysi biri ortogonal to'ldiruvchiga ega?	средний	1	LO1,LO5,LO7,LO8 ,LO9, 5.2, T5.3
	A	$(\mathcal{L}_1^{\perp})^{\perp} = \mathcal{L}_1$, $(\mathcal{L}_1 \cap \mathcal{L}_2)^{\perp} = \mathcal{L}_1^{\perp} + \mathcal{L}_2^{\perp}$.			
	B	agar$\mathcal{L}_1 \subset \mathcal{L}_2$, u holda$\mathcal{L}_2^{\perp} \supset \mathcal{L}_1^{\perp}$,			
	C	$(\mathcal{L}_1 \cap \mathcal{L}_2)^{\perp} = \mathcal{L}_1^{\perp} \cap \mathcal{L}_2^{\perp}$,			
	D	$(\mathcal{L}_1^{\perp})^{\perp} = \mathcal{L}_1^{\perp}$,			
41.		Har qanday $\vec{x} \in \mathcal{L}$ vektor uchun va har qanday cheklangan o'lchovli fazo ostiga bo'shliq $M \subset \mathcal{L}$ topiladi	средний	1	LO1,LO5,LO7, LO8,LO9, 5.1, T5.2, T5.3
	A	yagona $x_M^- \in M$ bunday elementlar $x_M^{\perp} \perp M$, bu erda $\overset{\text{r}}{x} = x_M^- + x_M^{\perp}$.			
	B	$x_M^- \in M$ bittasi uchun va bir nechta $x_M^{\perp} \perp M$, bu erda $\overset{\text{r}}{x} = x_M^- - x_M^{\perp}$			
	C	$x_M^- \in M$ bir nechta va bir nechta $x_M^{\perp} \perp M$, bu erda $\overset{\text{r}}{x} = x_M^{\perp} - x_M^-$			

	D	$x_M^- \in M$ bir nechta va bitta $x_M^\perp \perp M$, bu erda $\overset{\mathrm{r}}{x} = x_M^\perp + x_M^-$			
42.		S kvadrat matrisa orthogonal deyiladi, agar	легкий	1	LO1,LO5,LO7, LO8,LO9, T5.1, T5.2, T5.3
	A	$S^T S = E$.			
	B	$S = S^{-1}$			
	C	$S^2 = S^T$			
	D	$S^T = (S^{-1})^2$			
43.		$\mathcal{L}$- fazoda $e_1, e_2, ..., e_n$ - qandaydir bazis bo'lsa, u holda topiladiki:	средний	1	LO1,LO5,LO7, LO8,LO9,5.1, T5.2, T5.3
	A	$f_1, f_2, ..., f_n$ shunday ortonormal baziski, $e_1, e_2, ..., e_m$ va $f_1, f_2, ..., f_m$ chiziqli vektorlar qobig' $m \le n$ bo'lganda mostushadi			
	B	$f_1, f_2, ..., f_n$, shunday ortonormal baziski $e_1, e_2, ..., e_m$ va $f_1, f_2, ..., f_m$ chiziqli vektorlar qobig' $m \ge n$ bo'lganda mos tushadi			
	C	$f_1, f_2, ..., f_n$, ixtiyoriy baziski $e_1, e_2, ..., e_m$ va $f_1, f_2, ..., f_m$ chiziqli vektorlar qobig'hech qachon mos tushmaydi			
	D	$f_1, f_2, ..., f_n$, shunday ortonormal baziski, $e_1, e_2, ..., e_m$ va $f_1, f_2, ..., f_m$ chiziqli vektorlar qobig' hech qachon mos tushmaydi			
44.		$e_1, e_2, ..., e_n$ basis ortonormal shu holdaki, qachon bu bazisda skalyar ko'paytma ega matrisa bo'lsa	легкий	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	birlik.			
	B	nol			
	C	Uchburchakli			
	D	Ihtiyoriy			
45.		$a_1 = (1, -3, 1)$ va $a_2 = (4, -5, 3)$ vektorlar ta'sir qilgan fazo osti ortonormal bazisini toping	сложный	1	LO1,LO5,LO7, LO8,LO9, T5.1, T5.2, T5.3
	A	$\left(\frac{1}{\sqrt{11}}, \frac{-3}{\sqrt{11}}, \frac{1}{\sqrt{11}}\right), .\left(\frac{2}{\sqrt{6}}, \frac{1}{\sqrt{6}}, \frac{1}{\sqrt{6}}\right)$			

	B	$\left(\frac{-1}{\sqrt{11}},\frac{3}{\sqrt{11}},\frac{-1}{\sqrt{11}}\right),\left(\frac{2}{\sqrt{6}},\frac{-1}{\sqrt{6}},\frac{1}{\sqrt{6}}\right)$			
	C	$\left(\frac{-2}{\sqrt{11}},\frac{1}{\sqrt{11}},\frac{-1}{\sqrt{11}}\right),\left(\frac{1}{\sqrt{6}},\frac{-3}{\sqrt{6}},\frac{1}{\sqrt{6}}\right)$			
	D	$\left(\frac{3}{\sqrt{11}},\frac{-1}{\sqrt{11}},\frac{3}{\sqrt{11}}\right),\left(\frac{1}{\sqrt{6}},\frac{2}{\sqrt{6}},\frac{-1}{\sqrt{6}}\right)$			
46.		Koordinatalar ortormal bazisda berilgan. $a_1=(10,-20,10)$ vektor hosil qilgan fazo osti da $x=(0,1,0)$ vektorning x_M^- ortogonal proeksiyasini toping.	сложный	1	LO1,LO5,LO7,LO8 ,LO9, T5.1, T5.2, T5.3
	A	$x_M^-=\left(-\frac{1}{3},\frac{2}{3},-\frac{1}{3}\right).$			
	B	$x_M^-=\left(\frac{2}{3},-\frac{1}{3},-\frac{1}{3}\right),$			
	C	$x_M^-=\left(-\frac{1}{3},-\frac{1}{3},\frac{2}{3}\right),$			
	D	$x_M^-=\left(\frac{1}{3},-\frac{1}{3},\frac{2}{3}\right),$			
47.		Koordinatalar ortormal bazisda berilgan. $a_1=(10,-20,10)$ vektor hosil qilgan fazo osti da $x=(0,1,0)$ vektorning x_M^- ortogonal proeksiyasini toping.	сложный	1	LO1,LO5,LO7 LO8,LO9, T5.1, T5.2, T5.3
	A	$x_M^\perp=\left(\frac{1}{3},\frac{1}{3},\frac{1}{3}\right).$			
	B	$x_M^\perp=\left(\frac{1}{3},-\frac{1}{3},\frac{1}{3}\right),$			
	C	$x_M^\perp=\left(-\frac{1}{3},\frac{1}{3},-\frac{1}{3}\right),$			
	D	$x_M^\perp=\left(-\frac{1}{3},-\frac{1}{3},\frac{1}{3}\right),$			
48.		$a_1=(1,2,3)$ va $a_2=(4,5,6)$ vektorlar hosil qilgan M fazo osti proektsiyalashda $x=(1,-3,5)$ vektorning x_M^- ortogonal tashkil etuvchisini toping:	сложный	1	LO1,LO5,LO7, LO8,LO9, .3
	A	$x_M^-=3a_1+(-1)a_2=(-1,1,3).$			
	B	$x_M^-=3a_1+a_2=(1,-1,3),$			
	C	$x_M^-=a_1-3a_2=(1,-3,1),$			

	D	$x_M^- = a_1 + 3a_2 = (-1,3,1)$,			
49.		$a_1 = (1,2,3)$ va $a_2 = (4,5,6)$ vektorlar hosil qilgan M fazo osti proektsiyalashda $x = (1,-3,5)$ vektorning $x_M^\perp$ ortogonal tarkibini toping.	сложный	1	LO1,LO5,LO7, LO8,LO9,
	A	$x_M^\perp = (2,-4,2).$			
	B	$x_M^\perp = (-2,-4,2),$			
	C	$x_M^\perp = (2,2,-4),$			
	D	$x_M^\perp = (2,-4,-2),$			
50.		Nol vektordan iborat sistems a=0.	легкий	1	LO1,LO5,LO7, LO8,LO9, T5.2, T5.3
	A	Chiziqli bo’g’liq			
	B	Chiziqli erkli			
	C	Chiziqli erkli yokichiziqli bo’g’liq bo’lishi mumkin			
	D	unga tegishli bo'lgan fazoga bog'liq			

9-mavzu

№	Жавоб вариантлари	Савол	Қийинлик даражаси	Саволнинг шаблондаги рақами	Текширилаётган таълим натижалари
1.		a=(2.3) va b=(-3.2) vektorlar ortogonal bo'ladimi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal bo'ladi			
	B	Ortogonal bo'lmaydi			
	C	Ortonormal bo'ladi			
	D	To'g'ri javob yo'q			
2.		(1.2) va (3.-2) vektorlar ortogonal bo'ladimi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal bo'lmaydi			
	B	Ortogonal bo'ladi			
	C	Ortonormal bo'ladi			
	D	To'g'ri javob yo'q			
3.		n ning qiymati qanday bo'lganda a=(2.4) va b=(n.1) vektorlar ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	-2			
	B	2			
	C	1			
	D	-1			
4.		n ning qiymati qanday bo'lganda a=(4.n) va b=(1.-n) vektorlar ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	-2 va 2			
	B	-2			
	C	2			
	D	-4 va 4			
5.		n ning qanday qiymatida a=(2.4.1) va b=(n.1.2) vektorlar ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	-3			
	B	-2			
	C	2			
	D	3			
6.		a va b vektorlar ortogonal bo'lishi uchun qanday shart bajarilishi kerak?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis.

					Gramm-Shmidt for.
	A	Skalyar ko’paytmasi 0 ga teng			
	B	Yig’indisi 0 ga teng			
	C	Skalyar ko’paytmasi 1 ga teng			
	D	Skalyar ko’paytmasi 0 dan farqli			
7.		a va b vektorlar ortonormal bo’lishi uchun qanday shart bajarilishi kerak?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Vektorlarning uzunliklari 1 ga teng, ularning skalyar ko’paytmasi 0 ga teng			
	B	Skalyar ko’paytmasi 0 ga teng			
	C	Skalyar ko’paytmasi 1 ga teng			
	D	Skalyar ko’paytmasi 0 dan farqli			
8.		Vektorlar a=(1.3.2) va b=(4.-1.1) ortogonal bo’ladimi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Yo’q			
	B	Ha			
	C	Aniqmas			
	D	Ba’zi shartlar bajarilsa			
9.		Vektorlar a=(1.2.0) va b=(2.-1.10) ortogonal bo’ladimi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ha			
	B	Yo’q			
	C	Aniqmas			
	D	Ba’zi shartlar bajarilsa			
10.		a=(2,3,1) va b=(3,0,-6) vektorlar ortogonal bo’ladimi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal bo’ladi			
	B	Ortogonal bo’lmaydi			
	C	Ortonormal bo’ladi			
	D	To’g’ri javob yo’q			
11.		a=(2.4.n) va b=(2.1.-8) vektorlar ortogonal bo’lsa, n nechaga teng?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	1			
	B	0			
	C	-1			
	D	2			
12.		Vektorlar a=(2.1.4) va b=(n.2.2) ortogonal bo’lsa, n ni toping	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.

	A	-5			
	B	4			
	C	3			
	D	5			
13.		e_1=(1.0) va e_2=(0.1) vektorlar R^2 da …….	sodda	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortonormal bazis bo'ladi			
	B	Ortonormal bazis bo'lmaydi			
	C	Bazis bo'la olmaydi			
	D	Ortogonal emas			
14.		R^3 da e_1=(1.0.0), e_2=(0.1.0) va e_3=(0.0.1) vektorlar …….	sodda	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortonormal bazis bo'ladi			
	B	Ortonormal bazis bo'lmaydi			
	C	Bazis bo'la olmaydi			
	D	O'zaro ortogonal emas			
15.		Tekislikda a=(2,4) va b=(-4,2) vektorlar ……	sodda	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal bazis tashkil qiladi			
	B	Ortonormal bazis tashkil qiladi			
	C	Ortogonal emas			
	D	To'g'ri javob yo'q			
16.		a=(2,0,4) va b=(2,1,-1) vektorlar …… bo'ladi	sodda	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal			
	B	Ortogonal emas			
	C	Birlik vektorlar			
	D	To'g'ri javob yo'q			
17.		a=(2,2,4) va b=(2,1,-1) vektorlar …… bo'ladi	sodda	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal emas			
	B	Ortogonal			
	C	Birlik vektorlar			
	D	To'g'ri javob yo'q			
18.		n ning qanday qiymatida a=(2,3,0) va b=(2,1,n) vektorlar ortogonal bo'ladi?	sodda	9	LO(9),T(9) Ortogonal va ortonormal bazis.

					Gramm-Shmidt for.
	A	Hech qanday			
	B	0			
	C	2			
	D	3			
19.		n ning qanday qiymatida a=(-2,3,0) va b=(n,10,1) vektorlar ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	15			
	B	-15			
	C	10			
	D	-5			
20.		n ning qanday qiymatida a=(-2,1,2) va b=(n,3,2) vektorlar ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	3.5			
	B	3			
	C	4			
	D	2.5			
21.		a=(4,3) va b=(3,n) vektorlar n ning qanday qiymatida ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	-4			
	B	4			
	C	3			
	D	-5			
22.		E_1, E_2, E_3 vektorlar birlik vektorlar bo'lib, juft-jufti bilan ortogonal bo'lsa, bu vektorlar R^3 da ……	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortonormal bazis bo'ladi			
	B	Ortonormal bazis bo'lmaydi			
	C	Ortogonal bazis emas			
	D	Bazis tashkil qilmaydi			
23.		a=(3,5,4) va b=(2,-2,1) vektorlar ortogonal bo'ladimi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ortogonal bo'ladi			
	B	Ortonormal bo'ladi			
	C	Ortogonal bo'lmaydi			
	D	To'g'ri javob yo'q			
24.		a=(n,2,5) va b=(1,-4,2) vektorlar n ning qanday qiymatida ortogonal	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis.

		bo'ladi?			Gramm-Shmidt for.
	A	-2			
	B	2			
	C	0			
	D	4			
25.		a=(n,1,4) va b=(1,2,-2) vektorlar n ning qanday qiymatida ortogonal bo'ladi?	содда	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	6			
	B	-5			
	C	-6			
	D	4			
26.		$E_1,E_2,\ldots\ldots,E_n$ vektorlar sistemasi ortonormal deyiladi, agar quyidagi shart bajarilsa:	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$(E_i,E_j)=0,\ (i\neq j)\ ,\ (E_i,E_j)=1$			
	B	$(E_i,E_j)=1,\ (i\neq j)\ ,\ (E_i,E_j)=1$			
	C	$(E_i,E_j)=0,\ (i\neq j)\ ,\ (E_i,E_j)=0$			
	D	$(E_i,E_j)=1,\ (i\neq j)\ ,\ (E_i,E_j)=0$			
27.		E^n evklid fazoning $e_1,e_2,\ldots\ldots e_n$ ortogonal vektorlar sistemasi ortonormal vektorlar sistemasi deyiladi, agar	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\lvert e_i\rvert=1\quad (i=1,2,\ldots\ldots\ldots,n)$			
	B	$\lvert e_i\rvert=0\quad (i=1,2,\ldots\ldots\ldots,n)$			
	C	$\lvert e_i\rvert\neq1\quad (i=1,2,\ldots\ldots\ldots,n)$			
	D	$\lvert e_i\rvert>1\quad (i=1,2,\ldots\ldots\ldots,n)$			
28.		To'g'ri tasdiqni ko'rsating	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Vektorlarning ixtiyoriy ortogonal sistemasi chiziqli erkli			
	B	vektorlarning ixtiyoriy chiziqli erkli sistemasi ortogonaldir			
	C	Vektorlarning nol vektor qatnashgan ixtiyoriy sistemasi chiziqli erklidir			
	D	Vektorlarning proportsional vektorlar qatnashgan ixtiyoriy sistemasi chiziqli			

		erkli			
29.		E^nevklidfazoninge$e_1,e_2,\ldots,e_n$ bazisi ortogonal deyiladi, agar quyidagi shart bajarilsa:	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$(e_i,e_j)=0$ $(i=1,2,\ldots,n;\ j=1,2,\ldots\ldots,n;\ i\neq j)$			
	B	$(e_i,e_j)=1$ $(i=1,2,\ldots,n;\ j=1,2,\ldots\ldots,n;\ i\neq j)$			
	C	$(e_i,e_j)\neq 1$ $(i=1,2,\ldots,n;\ j=1,2,\ldots\ldots,n;\ i\neq j)$			
	D	$(e_i,e_j)\neq 0$ $(i=1,2,\ldots,n;\ j=1,2,\ldots\ldots,n;\ i\neq j)$			
30.		Ortogonallashtirish jarayoni deb, ……	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Ixtiyoriy bazisdan ortonormal bazis qurishga aytiladi			
	B	Ixtiyoriy vektorlar sistemasidan bazis qurishga aytiladi			
	C	Ixtiyoriy vektorlar sistemasidan chiziqli erkli vektorlar sistemasini qurishga aytiladi			
	D	Berilgan bazisda vektorning koordinatalarini topishga aytiladi			
31.		$E_1=(c,1,1)$, $E_2=(0,c,1)$, $E_3=(0,0,c)$ vektorlar c ning qanday qiymatida R^3 fazoda bazis bo'ladi?	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$c\neq 0$			
	B	C ning barcha qiymatlarida			
	C	C ning hech bir qiymatida			
	D	C=0			
32.		$E_1=(2/3,\ -1/3,\ n)$, $E_2=(-1/3,\ 2/3,\ 2/3)$, $E_3=(2/3,\ 2/3,\ -1/3)$ vektorlar n ning qanday qiymatida ortonormal bo'ladi?	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	2/3			
	B	-1/3			
	C	-2/3			
	D	1/3			
33.		$E_1=(2/3,\ 1/3,\ 2/3)$, $E_2=(-1/3,\ n,\ 2/3)$,	O'rta	9	LO(9),T(9) Ortogonal va

		E_3=(-2/3, 2/3, 1/3) vektorlar n ning qanday qiymatida ortonormal bo'ladi?			ortonormal bazis. Gramm-Shmidt for.
	A	-2/3			
	B	1/3			
	C	2/3			
	D	-1/3			
34.		E_1=(n, 3/7, 6/7), E_2=(3/7, 6/7, -2/7), E_3=(3/7, 6/7, -2/7) vektorlar n ning qanday qiymatida ortonormal bo'ladi?	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	-2/7			
	B	3/7			
	C	2/7			
	D	1/7			
35.		Quyidagi tasdiqlardan to'g'risini ko'rsating:	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	Har qanday n o'lchovli E Evklid fazoda ortonormallangan bazis mavjud			
	B	Vektorlarning ixtiyoriy ortogonal sistemasi chiziqli bog'liqdir			
	C	Vektorlarning ixtiyoriy chiziqli erkli sistemasi ortogonaldir			
	D	Vektorlarning nol vektor qatnashgan ixtiyoriy sistemasi chiziqli erklidir			
36.		E_1=(-1/3, 2/3, 2/3), E_2=(2/3, 2/3, -1/3), E_3=(2/3, -1/3, n) vektorlar n ning qanday qiymatida ortonormal bo'ladi?	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	2/3			
	B	1/3			
	C	-2/3			
	D	-1/3			
37.		nning qanday qiymatida berilgan $\vec{e}_1=\left(\frac{1}{\sqrt{2}},0,-\frac{1}{\sqrt{2}}\right)$, $\vec{e}_2=\left(\frac{1}{\sqrt{3}},\text{n},\frac{1}{\sqrt{3}}\right)$, $\vec{e}_3=\left(\frac{1}{\sqrt{6}},-\frac{2}{\sqrt{6}},\frac{1}{\sqrt{6}}\right)$ vektorlar sistemasi ortonormallangan bo'ladi.	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\frac{1}{\sqrt{3}}$			

	B	$\frac{1}{\sqrt{2}}$			
	C	$-\frac{1}{\sqrt{3}}$			
	D	$-\frac{1}{\sqrt{2}}$			
38.		nning qanday qiymatida berilgan $\vec{e}_1=\left(\frac{1}{\sqrt{3}},\frac{1}{\sqrt{3}},\frac{1}{\sqrt{3}}\right)$, $\vec{e}_2=\left(\text{n},\frac{1}{\sqrt{6}},\frac{1}{\sqrt{6}}\right)$, $\vec{e}_3=\left(0,-\frac{1}{\sqrt{2}},\frac{1}{\sqrt{2}}\right)$ vektorlar sistemasi ortonormallangan bo'ladi.	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$-\frac{2}{\sqrt{6}}$			
	B	$\frac{1}{\sqrt{3}}$			
	C	$\frac{2}{\sqrt{6}}$			
	D	$-\frac{1}{\sqrt{3}}$			
39.		nning qanday qiymatida berilgan $\vec{e}_1=\left(\text{n},\frac{1}{\sqrt{6}},\frac{1}{\sqrt{2}}\right)$, $\vec{e}_2=\left(-\frac{1}{\sqrt{3}},\frac{2}{\sqrt{6}},0\right)$, $\vec{e}_3=\left(\frac{1}{\sqrt{3}},\frac{1}{\sqrt{6}},-\frac{1}{\sqrt{2}}\right)$ vektorlar sistemasi ortonormallangan bo'ladi.	O'rta	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\frac{1}{\sqrt{3}}$			
	B	$\frac{2}{\sqrt{6}}$			
	C	$-\frac{1}{\sqrt{3}}$			
	D	$-\frac{2}{\sqrt{6}}$			
40.		$\left(\vec{x},\vec{y}\right)=x_1\overline{y}_1+x_2\overline{y}_2$ skalyar ko'paytmali unitar fazoda berilgan $\vec{a}=(1,i)$ va $\vec{b}=(i,i)$ vektorlardan ortonormallangan bazis quring.	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\vec{e}_1=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{i-1}{2},\frac{i+1}{2}\right)$			
	B	$\vec{e}_1=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{i+1}{2},\frac{i-1}{2}\right)$			

	C	$\vec{e_1}=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e_2}=\left(\frac{-i-1}{2},\frac{i+1}{2}\right)$			
	D	$\vec{e_1}=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e_2}=\left(\frac{i+1}{2},\frac{-i-1}{2}\right)$			
41.		$\{a_1,a_2\}$ chiziqli erkli vektorlar sistemasini R^2 daortogonal sistemaga aylantiradigan Gramm-Shmidt formulasini ko'rsating	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$E_1=a_1$, $E_2=a_2-E_1(a_1,a_2)/(a_1,a_1)$			
	B	$E_1=a_1$, $E_2=a_1-E_1(a_1,a_2)/(a_1,a_1)$			
	C	$E_1=a_1$, $E_2=a_1-a_2(a_1,a_2)/(a_1,a_1)$			
	D	$E_1=a_1$, $E_2=a_2-a_2(a_1,a_2)/(a_1,a_1)$			
42.		$\{a_1,a_2,a_3\}$ chiziqli erkli vektorlar sistemasini R^3daortogonal sistemaga aylantiradigan Gramm-Shmidt formulasini ko'rsating	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$E_1=a_1$, $E_2=a_2-E_1(a_1,a_2)/(a_1,a_1)$ $E_3=a_3-E_1(a_1,a_3)/(a_1,a_1)-E_2(E_2,a_3)/(E_2,E_2)$			
	B	$E_1=a_1$, $E_2=a_1-E_1(a_1,a_2)/(a_1,a_1)$ $E_3=a_1-E_1(a_1,a_3)/(a_1,a_1)-E(E_2,a_3)/(E_2,E_2)$			
	C	$E_1=a_1$, $E_2=a_1-a_2(a_1,a_2)/(a_1,a_1)$ $E_3=a_3-a_2(a_1,a_3)/(a_1,a_1)-E(E_2,a_3)/(E_2,E_2)$			
	D	$E_1=a_1$, $E_2=a_2-a_2(a_1,a_2)/(a_1,a_1)$ $E_3=a_1-a_2(a_1,a_3)/(a_1,a_1)-E(E_2,a_3)/(E_2,E_2)$			
43.		$\left(\vec{x},\vec{y}\right)=x_1\bar{y}_1+x_2\bar{y}_2$ skalyar ko'paytmali unitar fazoda berilgan $\vec{a}=(1,i)$ va $\vec{b}=(3,i)$ vektorlardan ortonormallangan bazis quring.	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\vec{e_1}=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e_2}=\left(\frac{1}{\sqrt{2}},-\frac{i}{\sqrt{2}}\right)$			
	B	$\vec{e_1}=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e_2}=\left(\frac{3}{\sqrt{2}},\frac{i}{\sqrt{2}}\right)$			
	C	$\vec{e_1}=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e_2}=\left(\frac{i}{\sqrt{2}},\frac{3}{\sqrt{2}}\right)$			
	D	$\vec{e_1}=\left(\frac{1}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e_2}=\left(\frac{1}{\sqrt{2}},\frac{3i}{\sqrt{2}}\right)$			
44.		$\left(\vec{x},\vec{y}\right)=x_1\bar{y}_1+x_2\bar{y}_2$ skalyar ko'paytmali unitar fazoda berilgan $\vec{a}=(i,2)$ va $\vec{b}=(i,i)$ vektorlardan ortonormallangan	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.

		bazis quring.			
	A	$\vec{e}_1=\left(\frac{i}{\sqrt{5}},\frac{2}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{4i+2}{5},\frac{i-2}{5}\right)$			
	B	$\vec{e}_1=\left(\frac{i}{\sqrt{5}},\frac{2}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{3i+2}{5},\frac{i+2}{5}\right)$			
	C	$\vec{e}_1=\left(\frac{i}{\sqrt{5}},\frac{2}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{i+2}{5},\frac{3i+2}{5}\right)$			
	D	$\vec{e}_1=\left(\frac{i}{\sqrt{5}},\frac{2}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{2i+2}{2},\frac{3i-2}{2}\right)$			
45.		$\left(\vec{x},\vec{y}\right)=x_1\overline{y}_1+x_2\overline{y_2}$ skalyar ko'paytmali unitar fazoda berilgan $\vec{a}=(2,i)$ va $\vec{b}=(i,i)$ vektorlardan ortonormallangan bazis quring.	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\vec{e}_1=\left(\frac{2}{\sqrt{5}},\frac{i}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{i-2}{5},\frac{4i+2}{5}\right)$			
	B	$\vec{e}_1=\left(\frac{2}{\sqrt{5}},\frac{i}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{2i-2}{5},\frac{4i-1}{5}\right)$			
	C	$\vec{e}_1=\left(\frac{2}{\sqrt{5}},\frac{i}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{i+2}{5},\frac{4i+1}{5}\right)$			
	D	$\vec{e}_1=\left(\frac{2}{\sqrt{5}},\frac{i}{\sqrt{5}}\right),\vec{e}_2=\left(\frac{2i+2}{5},\frac{4i+1}{5}\right)$			
46.		$\left(\vec{x},\vec{y}\right)=x_1\overline{y}_1+x_2\overline{y_2}$ skalyar ko'paytmali unitar fazoda berilgan $\vec{a}=(i,i)$ va $\vec{b}=(1,i)$ vektorlardan ortonormallangan bazis quring.	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{1-i}{2},\frac{i-1}{2}\right)$			
	B	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{1+i}{2},\frac{i-2}{2}\right)$			
	C	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{1+i}{2},\frac{2i-1}{2}\right)$			
	D	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{i}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{2-i}{2},\frac{i+1}{2}\right)$			
47.		$\left(\vec{x},\vec{y}\right)=x_1\overline{y}_1+x_2\overline{y_2}$ skalyar ko'paytmali unitar fazoda berilgan $\vec{a}=(i,1)$ va $\vec{b}=(i,i)$ vektorlardan ortonormallangan bazis quring.	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{1}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{1+i}{2},\frac{-1+i}{2}\right)$			

	B	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{1}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{2+i}{2},\frac{-i-1}{2}\right)$			
	C	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{1}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{-1+i}{2},\frac{-i+2}{2}\right)$			
	D	$\vec{e}_1=\left(\frac{i}{\sqrt{2}},\frac{1}{\sqrt{2}}\right),\vec{e}_2=\left(\frac{1+2i}{2},\frac{i-1}{2}\right)$			
48.		E_1, E_2, E_3 unitar fazodagi ortonormal bazis bo'lsa,a=3iE_1 +2E_2 +iE_3 va b=iE_1-E_2+2iE_3 vektorlarning skalyar ko'paytmasi topilsin	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	3			
	B	-7			
	C	-5			
	D	7			
49.		E_1, E_2, E_3 unitar fazodagi ortonormal bazis bo'lsa,a=2iE_1 +2E_2 +iE_3 va b=iE_1-E_2+iE_3 vektorlarning skalyar ko'paytmasi topilsin	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	1			
	B	2			
	C	-1			
	D	0			
50.		E^3 evklid fazoda berilgan $f_1=(1,0,0)$, $f_2=(0,1,-1)$, $f_3=(1,1,1)$ vektorlar orqali ortonormallangan bazis quring.	qiyin	9	LO(9),T(9) Ortogonal va ortonormal bazis. Gramm-Shmidt for.
	A	$\vec{e}_1=(1,0,0),\vec{e}_2=\left(0,\frac{1}{\sqrt{2}},-\frac{1}{\sqrt{2}}\right),$ $\vec{e}_3=\left(0,\frac{1}{\sqrt{2}},\frac{1}{\sqrt{2}}\right)$			
	B	$\vec{e}_1=(0,1,0),\vec{e}_2=\left(0,\frac{1}{\sqrt{2}},-\frac{1}{\sqrt{2}}\right),$ $\vec{e}_3=\left(0,\frac{1}{\sqrt{2}},\frac{1}{\sqrt{2}}\right)$			
	C	$\vec{e}_1=(0,1,-1),\vec{e}_2=(0,1,1),$ $\vec{e}_3=(1,1,1)$			
	D	$\vec{e}_1=(0,0,1),\vec{e}_2=(1,0,1),$ $\vec{e}_3=\left(\frac{1}{\sqrt{2}},0,\frac{1}{\sqrt{2}}\right)$			

10-mavzu

№	Javob variantlari	Savol	Qiyinlik darajasi	Savolningshablondagiraqami	Tekshirilayotgant a'limnatijalari
1		Hisoblang: $\begin{vmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{vmatrix}$	sodda	10	LO10, T5.1, T5.2
	A	$a_{11}a_{22} - a_{12}a_{21}$			
	B	$a_{11}a_{22} + a_{12}a_{21}$			
	C	$a_{11}a_{12} - a_{22}a_{21}$			
	D	$a_{11}a_{12} + a_{22}a_{21}$			
2		Hisoblang: $\begin{vmatrix} 3 & 2 \\ -4 & 5 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	23			
	B	32			
	C	7			
	D	26			
3		Hisoblang: $\begin{vmatrix} \cos x & \sin x \\ \sin x & \cos x \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	$\cos 2x$			
	B	$\sin 2x$			
	C	1			
	D	0			
4		Hisoblang: $\begin{vmatrix} 5 & 3 \\ 7 & -4 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-41			
	B	41			
	C	1			
	D	-1			
5		Hisoblang: $\begin{vmatrix} 4 & -7 \\ -2 & -3 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-26			
	B	26			
	C	2			
	D	-2			
6		Hisoblang: $\begin{vmatrix} tgx & -1 \\ 1 & tgx \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2

	A	$\frac{1}{\cos^2 x}$			
	B	$\frac{1}{\sin^2 x}$			
	C	$tg^2 x$			
	D	$-\frac{1}{\cos^2 x}$			
7		Hisoblang: $\begin{vmatrix} 3 & 2 \\ -4 & 5 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	23			
	B	-23			
	C	32			
	D	-32			
8		Hisoblang: $\begin{vmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	$a_{11}a_{22}a_{33} + a_{12}a_{23}a_{31} + a_{13}a_{21}a_{32} - a_{13}a_{22}a_{31} - a_{12}a_{21}a_{33} - a_{11}a_{23}a_{32}$			
	B	$a_{11}a_{22}a_{33}$			
	C	$a_{11}a_{22}a_{33} + a_{12}a_{23}a_{31} + a_{13}a_{21}a_{32}$			
	D	$a_{13}a_{21}a_{32} - a_{13}a_{22}a_{31} - a_{12}a_{21}a_{33} - a_{11}a_{23}a_{32}$			
9		Hisoblang: $\begin{vmatrix} 2 & -1 & 3 \\ 1 & 1 & 4 \\ 2 & -3 & 5 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	16			
	B	6			
	C	-16			
	D	-6			
10		Hisoblang: $\begin{vmatrix} 4 & -2 & 0 \\ 3 & 5 & -6 \\ -3 & 4 & 0 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	60			
	B	-60			
	C	142			
	D	-12			
11		Hisoblang: $\begin{vmatrix} -3 & 5 & -5 \\ 2 & 2 & -3 \\ 1 & 3 & -3 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-14			
	B	14			
	C	41			

	D	-41			
12		Hisoblang: $\begin{vmatrix} 1 & -2 & 4 \\ -3 & 5 & 5 \\ 2 & -1 & 3 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-46			
	B	46			
	C	-64			
	D	64			
13		Hisoblang: $\begin{vmatrix} 10 & -2 & 4 \\ -15 & 3 & 6 \\ 20 & -1 & 5 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-360			
	B	360			
	C	-36			
	D	36			
14		Hisoblang: $\begin{vmatrix} 1 & 2 & 5 \\ 5 & -3 & 7 \\ 4 & 6 & 5 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	159			
	B	-159			
	C	59			
	D	-59			
15		Hisoblang: $\begin{vmatrix} 5 & 0 & 6 \\ 4 & 0 & 5 \\ 2 & 4 & 3 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-4			
	B	4			
	C	-6			
	D	6			
16		Hisoblang: $\begin{vmatrix} 2 & 2 & -1 \\ 7 & 0 & 3 \\ 3 & 4 & 0 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-34			
	B	34			
	C	-43			
	D	43			
17		Hisoblang: $\begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 0 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	27			
	B	-27			
	C	72			
	D	-72			

18		Hisoblang: $\begin{vmatrix} 0 & 3 & 7 \\ 1 & -3 & 4 \\ 0 & 2 & 6 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	-4			
	B	4			
	C	-6			
	D	6			
19		Hisoblang: $\begin{vmatrix} -1 & 1 & -2 \\ 0 & 2 & 4 \\ 2 & 3 & 5 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	18			
	B	-18			
	C	16			
	D	-16			
20		Hisoblang: $\begin{vmatrix} 1 & 2 & 3 \\ 1 & 2 & 3 \\ 4 & 5 & 1 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	0			
	B	18			
	C	-18			
	D	8			
21		Hisoblang: $\begin{vmatrix} 1 & 2 & 3 \\ 2 & 4 & 6 \\ 4 & 5 & 1 \end{vmatrix}$	sodda	1	LO10, T5.1, T5.2
	A	0			
	B	18			
	C	-18			
	D	8			
22		$A = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$ matritsaningdeterminantinihisoblang.	sodda	1	LO10, T5.1, T5.2
	A	$ad - bc$			
	B	$ab - cd$			
	C	$bc - ad$			
	D	$cd - ab$			
23		Agar $\det A = 2$ bo'lsa, u holda $\det A^{-1} = ?$	sodda	1	LO10, T5.1, T5.2
	A	$\det A^{-1} = \frac{1}{2}$			
	B	$\det A^{-1} = 2$			
	C	$\det A^{-1} = -2$			

	D	$\det A^{-1} = -\frac{1}{2}$			
24		$\det A^T = \det A$ tenglikto'g'rimi?	sodda	1	LO10, T5.1, T5.2
	A	Hardoimto'g'ri			
	B	Noto'g'ri			
	C	Bundaymunosabatmavjudemas			
	D	Ba'zidato'g'ri			
25		$\begin{bmatrix} a & b \\ 0 & d-\frac{c}{a}b \end{bmatrix}$ matritsaningdeterminantinihisoblang.	sodda	1	LO10, T5.1, T5.2
	A	$a\left(d-\frac{c}{a}b\right)$			
	B	$a\left(d-\frac{c}{a}\right)$			
	C	$a\left(1-\frac{c}{a}b\right)$			
	D	0			
26		$\begin{vmatrix} 2 & 1 & 2 \\ -2 & 3 & 0 \\ 1 & 0 & 2 \end{vmatrix}$ determinantning a_{21} elementining M_{21} minorini toping	o'rta	1	LO10, T5.1, T5.2
	A	$M_{21} = \begin{vmatrix} 1 & 2 \\ 0 & 2 \end{vmatrix}$			
	B	$M_{21} = \begin{vmatrix} 2 & 1 \\ 1 & 0 \end{vmatrix}$			
	C	$M_{21} = \begin{vmatrix} 1 & 2 \\ -2 & 3 \end{vmatrix}$			
	D	$M_{21} = \begin{vmatrix} -2 & 0 \\ 0 & 2 \end{vmatrix}$			
27		$\begin{vmatrix} 2 & 1 & 2 \\ -2 & 3 & 0 \\ 1 & 0 & 2 \end{vmatrix}$ determinantning a_{21} elementining A_{21} algebraikto`ldiruvchisiini toping.	o'rta	1	LO10, T5.1, T5.2
	A	$A_{21} = -\begin{vmatrix} 1 & 2 \\ 0 & 2 \end{vmatrix}$			
	B	$A_{21} = \begin{vmatrix} 1 & 2 \\ 0 & 2 \end{vmatrix}$			

	C	$M_{21}=\begin{vmatrix}1 & 2\\ 0 & 2\end{vmatrix}$			
	D	$A_{21}=\begin{vmatrix}1 & 2\\ -2 & 3\end{vmatrix}$			
28		a_{11} elementning minori deb, …	o'rta	1	LO10, T5.1, T5.2
	A	$M_{11}=\begin{vmatrix}a_{22} & a_{23}\\ a_{32} & a_{33}\end{vmatrix}$ determinantga aytiladi.			
	B	$M_{11}=\begin{vmatrix}a_{21} & a_{23}\\ a_{31} & a_{33}\end{vmatrix}$ determinantga aytiladi.			
	C	$M_{11}=-\begin{vmatrix}a_{11} & a_{13}\\ a_{21} & a_{23}\end{vmatrix}$ determinantga aytiladi.			
	D	$M_{11}=\begin{vmatrix}a_{12} & a_{13}\\ a_{22} & a_{23}\end{vmatrix}$ determinantga aytiladi.			
29		$\begin{vmatrix}1 & 1 & 4\\ -1 & 2 & 3\\ -3 & 2 & 5\end{vmatrix}$ determinantning M_{23} minorinihisoblang.	o'rta	1	LO10, T5.1, T5.2
	A	5			
	B	-5			
	C	0			
	D	15			
30		a_{12} elementning minori deb,	o'rta	1	LO10, T5.1, T5.2
	A	$M_{12}=\begin{vmatrix}a_{21} & a_{23}\\ a_{31} & a_{33}\end{vmatrix}$ determinantga aytiladi.			
	B	$M_{12}=\begin{vmatrix}a_{22} & a_{23}\\ a_{32} & a_{33}\end{vmatrix}$ determinantga aytiladi.			
	C	$M_{12}=-\begin{vmatrix}a_{11} & a_{13}\\ a_{21} & a_{23}\end{vmatrix}$ determinantga aytiladi.			
	D	$M_{12}=\begin{vmatrix}a_{12} & a_{13}\\ a_{22} & a_{23}\end{vmatrix}$ determinantga aytiladi.			
31		$\begin{vmatrix}2 & 1 & -4\\ 1 & 3 & 5\\ 3 & 2 & -1\end{vmatrix}$ determinantning A_{32} algebraikto`ldiruvchisinihisoblang.	o'rta	1	LO10, T5.1, T5.2
	A	-14			

	B	-7			
	C	14			
	D	7			
32		$\begin{vmatrix} 2 & 1 & -4 \\ 1 & 3 & 5 \\ 3 & 2 & -1 \end{vmatrix}$ determinantning A_{13} algebraikto`ldiruvchisinihisoblang.	o'rta		LO10, T5.1, T5.2
	A	-7			
	B	-14			
	C	14			
	D	7			
33		Hisoblang: $\begin{vmatrix} 1-a & 1 & 1 \\ 1 & 1-a & 1 \\ 1 & 1 & 1-a \end{vmatrix}$	o'rta		LO10, T5.1, T5.2
	A	$a^2(3-a)$			
	B	$a^2(3+a)$			
	C	a^2			
	D	$a(3-a)$			
34		4x4 o'lchamli A matritsaningdeterminanti $\det A = \frac{1}{2}$ gateng. $\det 2A = ?$	o'rta		LO10, T5.1, T5.2
	A	8			
	B	2			
	C	16			
	D	4			
35		4x4 o'lchamli A matritsaningdeterminanti $\det A = \frac{1}{2}$ gateng. $\det(-A) = ?$	o'rta		LO10, T5.1, T5.2
	A	$\frac{1}{2}$			
	B	2			
	C	16			
	D	4			
36		4x4 o'lchamli A matritsaningdeterminanti $\det A = \frac{1}{2}$ gateng. $\det(A^2) = ?$	o'rta		LO10, T5.1, T5.2
	A	$\frac{1}{4}$			
	B	2			
	C	16			
	D	4			
37		4x4 o'lchamli A matritsaningdeterminanti $\det A = \frac{1}{2}$	o'rta		LO10, T5.1, T5.2

		gateng. $\det(A^{-1}) = ?$			
	A	2			
	B	$\frac{1}{2}$			
	C	16			
	D	4			
38		3x3 o'lchamli A matritsaningdeterminanti $\det A = -1$ gateng. $\det(A^{-1}) = ?$	o'rta		LO10, T5.1, T5.2
	A	-1			
	B	$-\frac{1}{8}$			
	C	1			
	D	2			
39		3x3 o'lchamli A matritsaningdeterminanti $\det A = -1$ gateng. $\det(\frac{1}{2}A) = ?$	o'rta		LO10, T5.1, T5.2
	A	$-\frac{1}{8}$			
	B	1			
	C	-1			
	D	2			
40		3x3 o'lchamli A matritsaningdeterminanti $\det A = -1$ gateng. $\det(-A) = ?$	o'rta		LO10, T5.1, T5.2
	A	1			
	B	-1			
	C	$-\frac{1}{8}$			
	D	2			
41		Hisoblang: $\Delta = \begin{vmatrix} 2 & -4 & 1 & 5 \\ 1 & -3 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & -1 & 1 & 2 \end{vmatrix}$	murakkab		LO10, T5.1, T5.2
	A	-14			
	B	-7			
	C	14			
	D	7			
42		Hisoblang: $\Delta = \begin{vmatrix} 4 & 4 & 0 & -6 \\ 1 & -3 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & -1 & 1 & 2 \end{vmatrix}$	murakkab		LO10, T5.1, T5.2
	A	0			
	B	-7			

	C	1			
	D	7			
43		Hisoblang: $\Delta = \begin{vmatrix} 4 & 4 & 0 & -6 \\ 1 & 1 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & 3 & 1 & 2 \end{vmatrix}$	murakkab		LO10, T5.1, T5.2
	A	0			
	B	-7			
	C	1			
	D	7			
44		Hisoblang: $\Delta = \begin{vmatrix} 4 & 0 & 0 & 0 \\ 0 & 4 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 2 \end{vmatrix}$	murakkab		LO10, T5.1, T5.2
	A	32			
	B	-7			
	C	-32			
	D	7			
45		$\Delta = \begin{vmatrix} 2 & -4 & 1 & 5 \\ 1 & -3 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & -1 & 1 & 2 \end{vmatrix}$ determinantning M_{23} minorinihisoblang.	murakkab		LO10, T5.1, T5.2
	A	26			
	B	-7			
	C	14			
	D	7			
46		$\Delta = \begin{vmatrix} 4 & 4 & 0 & -6 \\ 1 & -3 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & -1 & 1 & 2 \end{vmatrix}$ determinantning M_{23} minorinihisoblang.	murakkab		LO10, T5.1, T5.2
	A	0			
	B	-7			
	C	14			
	D	7			
47		$\Delta = \begin{vmatrix} 4 & 4 & 0 & -6 \\ 1 & 1 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & 3 & 1 & 2 \end{vmatrix}$ determinantning M_{23} minorinihisoblang.	murakkab		LO10, T5.1, T5.2
	A	0			
	B	-7			
	C	14			
	D	7			

48		$\Delta = \begin{vmatrix} 4 & 0 & 0 & 0 \\ 0 & 4 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 2 \end{vmatrix}$ determinantning M_{23} minorinihisoblang.	murakkab		LO10, T5.1, T5.2
	A	0			
	B	-7			
	C	14			
	D	7			
49		$\Delta = \begin{vmatrix} 2 & -4 & 1 & 5 \\ 1 & -3 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & -1 & 1 & 2 \end{vmatrix}$ determinantning A_{23} algebraikto'ldiruvchisinihisoblang.	murakkab		LO10, T5.1, T5.2
	A	-26			
	B	-7			
	C	14			
	D	7			
50		$\Delta = \begin{vmatrix} 4 & 4 & 0 & -6 \\ 1 & -3 & 2 & 5 \\ 2 & 2 & 0 & -3 \\ 3 & -1 & 1 & 2 \end{vmatrix}$ determinantning A_{23} algebraikto'ldiruvchisinihisoblang.	murakkab		LO10, T5.1, T5.2
	A	0			
	B	-7			
	C	14			
	D	7			

12-mavzu

№	Жавобвариантлари	Савол	Қийинликдаражаси	Саволнингшаблондагирақами	Текширилаётгантаълимнатижалари
86.		$\begin{pmatrix} 2 & 0 \\ 0 & 5 \end{pmatrix}$ matritsaningxossoninitoping.	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\{2,5\}$			
	B	$\{2,-5\}$			
	C	$\{-2,5\}$			
	D	$\{1,-5\}$			
87.		$\begin{pmatrix} 3 & 0 \\ 0 & 3 \end{pmatrix}\cdot\begin{pmatrix} 2 & 0 \\ 0 & 5 \end{pmatrix}$ matritsaningxossoninitoping.	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\{6,15\}$			
	B	$\{2,-15\}$			
	C	$\{-2,15\}$			
	D	$\{6,-5\}$			
88.		$2\cdot\begin{pmatrix} 1 & 0 \\ 0 & 2 \end{pmatrix}$ matritsaningxossoninitoping.	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\{2,4\}$			
	B	$\{2,5\}$			
	C	$\{1,5\}$			
	D	$\{-2,4\}$			
89.		$\begin{pmatrix} 3 & 0 \\ 0 & 1 \end{pmatrix}+\begin{pmatrix} 2 & 0 \\ 0 & 0 \end{pmatrix}$ matritsaningxossoninitoping.	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\{5,1\}$			
	B	$\{2,7\}$			
	C	$\{5,2\}$			
	D	$\{1,-5\}$			
90.		$\begin{pmatrix} \frac{1}{2} & -\frac{\sqrt{3}}{2} \\ \frac{\sqrt{3}}{2} & \frac{1}{2} \end{pmatrix}$ matritsaningxossoninitoping.	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$\{2,-3\}$			
	C	$\{-3,5\}$			
	D	$\{1,4\}$			
91.		$\begin{pmatrix} \frac{\sqrt{3}}{2} & -\frac{1}{2} \\ \frac{1}{2} & \frac{\sqrt{3}}{2} \end{pmatrix}$	содда	12	LO12, T2.2, T5.1, T5.2, T5.3

		matritsaningxossoninitoping.			
	A	$\varnothing$			
	B	$\{2,1\}$			
	C	$\{0,5\}$			
	D	$\{1,0\}$			
92.		$\begin{pmatrix} \frac{\sqrt{2}}{2} & -\frac{\sqrt{2}}{2} \\ \frac{\sqrt{2}}{2} & \frac{\sqrt{2}}{2} \end{pmatrix}$ matritsaningxossoninitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$\{2,-5\}$			
	C	$\{2,5\}$			
	D	$\{1,-5\}$			
93.		$\begin{pmatrix} \cos\alpha & -\sin\alpha \\ \sin\alpha & \cos\alpha \end{pmatrix}$, $\alpha \neq n\pi$ matritsaningxossoninitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	2			
	C	-2			
	D	$\{2,-5\}$			
94.		$\begin{pmatrix} \sin\alpha & -\cos\alpha \\ \cos\alpha & \sin\alpha \end{pmatrix}$, $\alpha \neq n\pi$ matritsaningxossoninitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	0			
	C	1			
	D	-1			
95.		$\begin{pmatrix} 2\cos\pi & -\sin\pi \\ \sin\pi & 2\cos\pi \end{pmatrix}$ matritsaningxossoninitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\{-2,-2\}$			
	B	$\{-2,-3\}$			
	C	$\{-1,-3\}$			
	D	$\{2,-3\}$			
96.		$\begin{pmatrix} 2 & 0 \\ 0 & 5 \end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(1,0),(0,1)$			
	B	$(0,1),(2,1)$			
	C	$(-1,0),(2,1)$			
	D	$(1,-1),(0,1)$			
97.		$\begin{pmatrix} 3 & 0 \\ 0 & 3 \end{pmatrix}\cdot\begin{pmatrix} 2 & 0 \\ 0 & 5 \end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3

	A	$(1,0),(0,1)$			
	B	$(3,1),(-2,1)$			
	C	$(-1,0),(-2,1)$			
	D	$(1,-1),(4,1)$			
98.		$2\cdot\begin{pmatrix}1 & 0\\ 0 & 2\end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(1,0),(0,1)$			
	B	$(-3,1),(2,-1)$			
	C	$(-1,3),(-2,1)$			
	D	$(1,-2),(0,3)$			
99.		$\begin{pmatrix}3 & 0\\ 0 & 1\end{pmatrix}+\begin{pmatrix}2 & 0\\ 0 & 0\end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(1,0),(0,1)$			
	B	$(-4,1),(2,-1)$			
	C	$(-1,0),(-2,1)$			
	D	$(1,-1),(3,1)$			
100.		$\begin{pmatrix}\frac{1}{2} & -\frac{\sqrt{3}}{2}\\ \frac{\sqrt{3}}{2} & \frac{1}{2}\end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$(0,1),(2,1)$			
	C	$(-1,0),(2,1)$			
	D	$(1,-1),(0,1)$			
101.		$\begin{pmatrix}\frac{\sqrt{3}}{2} & -\frac{1}{2}\\ \frac{1}{2} & \frac{\sqrt{3}}{2}\end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$(0,-1),(-2,1)$			
	C	$(-1,4),(3,1)$			
	D	$(1,-3),(3,1)$			
102.		$\begin{pmatrix}\frac{\sqrt{2}}{2} & -\frac{\sqrt{2}}{2}\\ \frac{\sqrt{2}}{2} & \frac{\sqrt{2}}{2}\end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$(5,1),(2,3)$			

	C	$(-1,4),(4,1)$			
	D	$(1,-2),(5,1)$			
103.		$\begin{pmatrix}\cos\alpha & -\sin\alpha\\ \sin\alpha & \cos\alpha\end{pmatrix}$, $\alpha \neq n\pi$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$(2,1),(-2,1)$			
	C	$(-1,0),(-2,1)$			
	D	$(1,-1)$			
104.		$\begin{pmatrix}\sin\alpha & -\cos\alpha\\ \cos\alpha & \sin\alpha\end{pmatrix}$, $\alpha \neq n\pi$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$(2,-1)$			
	C	$(2,1)$			
	D	$(1,-3)$			
105.		$\begin{pmatrix}2\cos\pi & -\sin\pi\\ \sin\pi & 2\cos\pi\end{pmatrix}$ matritsaningxosvektorinitoping.	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	Ixtiyoriyvektor			
	B	$(3,1),(2,1)$			
	C	$(-1,0)$			
	D	$(0,1)$			
106.		Какой из чисел является действительнымсобственнымчислом для матрицы $\begin{pmatrix}3 & 4\\ 4 & 3\end{pmatrix}$?	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			
	B	3			
	C	2			
	D	4			
107.		$\begin{pmatrix}3 & 4\\ 4 & 3\end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	7			
	B	6			
	C	5			
	D	8			
108.		$\begin{pmatrix}1 & 1 & 1\\ 0 & 1 & 1\\ 0 & 0 & 1\end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	sodda	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	1			

	B	3			
	C	2			
	D	4			
109.		$\begin{pmatrix} -1 & -6 \\ 2 & 6 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	3			
	C	5			
	D	7			
110.		$\begin{pmatrix} -1 & -6 \\ 2 & 6 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	3			
	B	2			
	C	6			
	D	4			
111.		$\begin{pmatrix} 1 & -2 \\ 3 & 8 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?		12	LO12, T2.2, T5.1, T5.2, T5.3
	A	2			
	B	5			
	C	3			
	D	4			
112.		$\begin{pmatrix} 1 & -2 \\ 3 & 8 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	7			
	B	5			
	C	6			
	D	8			
113.		$\begin{pmatrix} 1 & -4 \\ 1 & 1 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	3			
	C	4			
	D	5			
114.		$\begin{pmatrix} 3 & -2 \\ -4 & 1 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3

	A	-1			
	B	-2			
	C	3			
	D	4			
115.		$\begin{pmatrix} 3 & -2 \\ -4 & 1 \end{pmatrix}$ matritsa uchun quyidagilardan qaysi biri xos son bo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	5			
	B	3			
	C	4			
	D	7			
116.		$\begin{pmatrix} 3 & 4 \\ 4 & 3 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(-1,1)$			
	B	$(-1,0)$			
	C	$(1,0)$			
	D	$(0,3)$			
117.		$\begin{pmatrix} 3 & 4 \\ 4 & 3 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(1,1)$			
	B	$(1,0)$			
	C	$(0,3)$			
	D	$(0,1)$			
118.		$\begin{pmatrix} 1 & 1 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(c,0,0)$			
	B	$(0,1,0)$			
	C	$(0,1,c)$			
	D	$(0,0,c)$			
119.		$\begin{pmatrix} -1 & -6 \\ 2 & 6 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(2,-1)$			
	B	$(2,4)$			
	C	$(3,1)$			

	D	$(3,0)$			
120.		$\begin{pmatrix} -1 & -6 \\ 2 & 6 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(3,-2)$			
	B	$(3,2)$			
	C	$(2,3)$			
	D	$(-3,0)$			
121.		$\begin{pmatrix} 1 & -2 \\ 3 & 8 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(-2,1)$			
	B	$(0,5)$			
	C	$(1,9)$			
	D	$(9,1)$			
122.		$\begin{pmatrix} 1 & -2 \\ 3 & 8 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(-1,3)$			
	B	$(3,6)$			
	C	$(0,1)$			
	D	$(-1,7)$			
123.		$\begin{pmatrix} 1 & -4 \\ 1 & 1 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\varnothing$			
	B	$(1,1)$			
	C	$(2,3)$			
	D	$(4,5)$			
124.		$\begin{pmatrix} 3 & -2 \\ -4 & 1 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixosvektorbo'ladi?	содда	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$(-1,1)$			
	B	$(-2,1)$			
	C	$(-3,1)$			
	D	$(-1,4)$			
125.		$\begin{pmatrix} 3 & -2 \\ -4 & 1 \end{pmatrix}$ matritsauchunquyidagilardanqaysibirixo	содда	12	LO12, T2.2, T5.1, T5.2, T5.3

		svektorbo’ladi?			
	A	$(1,2)$			
	B	$(1,3)$			
	C	$(2,2)$			
	D	$(2,3)$			
41.		$\begin{pmatrix} 0 & 2 \\ 3 & 5 \end{pmatrix}$ matritsanidioganalko’rinishgao’tkazing.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix} -1 & 0 \\ 0 & 6 \end{pmatrix}$			
	B	$\begin{pmatrix} 1 & 0 \\ 0 & 6 \end{pmatrix}$			
	C	$\begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} -1 & 6 \\ 0 & 1 \end{pmatrix}$			
42.		$\begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}$ matritsanidioganalko’rinishgao’tkazing.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	O’tmaydi			
	B	$\begin{pmatrix} 2 & 0 \\ 0 & 3 \end{pmatrix}$			
	C	$\begin{pmatrix} 3 & 0 \\ 2 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 0 & 3 \\ 2 & 0 \end{pmatrix}$			
43.		$\begin{pmatrix} -1 & 1 \\ 0 & -1 \end{pmatrix}$ matritsanidioganalko’rinishgao’tkazing.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	O’tmaydi			
	B	$\begin{pmatrix} -1 & 0 \\ 0 & 4 \end{pmatrix}$			
	C	$\begin{pmatrix} 3 & 0 \\ 0 & 2 \end{pmatrix}$			
	D	$\begin{pmatrix} -1 & 3 \\ 0 & 1 \end{pmatrix}$			
44.		$\begin{pmatrix} 3 & 4 \\ 4 & 3 \end{pmatrix}$ matritsanidioganalko’rinishgao’tkazing.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix} 1 & 0 \\ 0 & 7 \end{pmatrix}$			

	B	$\begin{pmatrix} -1 & 0 \\ 0 & 7 \end{pmatrix}$			
	C	$\begin{pmatrix} -1 & 0 \\ 0 & 6 \end{pmatrix}$			
	D	$\begin{pmatrix} 2 & 0 \\ 0 & 1 \end{pmatrix}$			
45.		$\begin{pmatrix} -1 & -6 \\ 2 & 6 \end{pmatrix}$ matritsanidioganalko'rinishgao'tkazing.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix} 2 & 0 \\ 0 & 3 \end{pmatrix}$			
	B	$\begin{pmatrix} 1 & 0 \\ 0 & 3 \end{pmatrix}$			
	C	$\begin{pmatrix} 2 & 0 \\ 1 & 6 \end{pmatrix}$			
	D	$\begin{pmatrix} 3 & 0 \\ 0 & -2 \end{pmatrix}$			
46.		$\begin{pmatrix} 0 & 2 \\ 3 & 5 \end{pmatrix}$ matritsani diagonal ko'rinishga o'tish matritsasini toping.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix} 2 & 1 \\ -1 & 3 \end{pmatrix}$			
	B	$\begin{pmatrix} 2 & 1 \\ 0 & 3 \end{pmatrix}$			
	C	$\begin{pmatrix} -1 & 0 \\ 1 & 2 \end{pmatrix}$			
	D	$\begin{pmatrix} 1 & 3 \\ 0 & 2 \end{pmatrix}$			
47.		$\begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}$ matritsani diagonal ko'rinishga o'tish matritsasini toping.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	Mavjudemas			
	B	$\begin{pmatrix} 3 & 1 \\ 2 & 3 \end{pmatrix}$			
	C	$\begin{pmatrix} 3 & 1 \\ 2 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 0 & 3 \\ 2 & 1 \end{pmatrix}$			
48.		$\begin{pmatrix} -1 & 1 \\ 0 & -1 \end{pmatrix}$ matritsani diagonal	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3

		ko’rinishga o’tish matritsasini toping.			
	A	Mavjudemas			
	B	$\begin{pmatrix} -1 & 2 \\ 3 & 6 \end{pmatrix}$			
	C	$\begin{pmatrix} 3 & 1 \\ 1 & 2 \end{pmatrix}$			
	D	$\begin{pmatrix} 1 & 3 \\ 0 & 2 \end{pmatrix}$			
49.		$\begin{pmatrix} 3 & 4 \\ 4 & 3 \end{pmatrix}$ matritsani diagonal ko’rinishga o’tish matritsasini toping.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix} -1 & 1 \\ 1 & 1 \end{pmatrix}$			
	B	$\begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}$			
	C	$\begin{pmatrix} -1 & 1 \\ 2 & 6 \end{pmatrix}$			
	D	$\begin{pmatrix} 2 & 1 \\ 0 & 1 \end{pmatrix}$			
50.		$\begin{pmatrix} -1 & -6 \\ 2 & 6 \end{pmatrix}$ matritsani diagonal ko’rinishga o’tish matritsasini toping.	мураккаб	12	LO12, T2.2, T5.1, T5.2, T5.3
	A	$\begin{pmatrix} 2 & 3 \\ -1 & -2 \end{pmatrix}$			
	B	$\begin{pmatrix} 1 & 2 \\ 2 & -3 \end{pmatrix}$			
	C	$\begin{pmatrix} 2 & 3 \\ 1 & 2 \end{pmatrix}$			
	D	$\begin{pmatrix} 3 & 1 \\ -1 & 2 \end{pmatrix}$			

13-14-mavzular

№	Жавоб вариантлари	Савол	Қийинлик даражаси	Саволнинг шаблондаги рақами	Текширилаётган таълим натижалари
1		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix}1 & 3\\4 & 5\end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisani toping.	o`rta		
	A	$\begin{pmatrix}5 & 4\\3 & 1\end{pmatrix}$			
	B	$\begin{pmatrix}1 & 4\\3 & 1\end{pmatrix}$			
	C	$\begin{pmatrix}5 & 1\\3 & 1\end{pmatrix}$			
	D	$\begin{pmatrix}5 & 3\\3 & 1\end{pmatrix}$			
2.		$C[a,b]$ fazoda quyidagi vektorlar $x_1 = e^t$ va $x_2 = 3e^t$ chiziqli…….	sodda		
	A	Bog'liq			
	B	Bog'liq emas			
	C	Erkli			
	D	Bazan erkli			
3.		Darajasi ikkidan katta bo'lmagan P_2 ko'phadlar chiziqli fazosida $P(t) = 4 + 3t - 2t^2$ vektorning quyidagi bazisdagi $e_1 = 1$, $e_2 = t - 1$, $e_3 = (t-1)^2$ koordinatalarini toping.	sodda		
	A	5, -1, -2;			
	B	4, -1, -2;			
	C	5, -1, -1;			
	D	0, -1, -2;			
4.		Darajasi uchdan katta bo'lmagan P_3 ko'phadlar chiziqli fazosida $P(t) = 3 + 2t - t^2 + t^3$ vektorning quyidagi bazisdagi $e_1 = 1$, $e_2 = t - 1$, $e_3 = (t-1)^2$, $e_4 = (t-1)^3$ koordinatalarini toping.	sodda		
	A	5, 3, 2,1;			
	B	4, 2, 2,1;			

	C	3, 3, 2,1;			
	D	0, 3, 2,1;			
5.		Agar chiziqli fazoda n ta vektorlar bazis tashkil qilsa, u holda bu fazodagi ixtiyoriy $(n+1)$ ta vektorlar …….....	sodda		
	A	Bog'liq			
	B	Ekli			
	C	Bazan bog'liq			
	D	Bazan erkli			
6.		Darajasi ikkidan katta bo'lmagan P_2 ko'phadlar chiziqli fazosida $P(t)=6+2(t-1)+3(t-1)^2$ vektorning quyidagi bazisdagi $e_1=1,\quad e_2=t,\quad e_3=t^2$ koordinatalarini toping..	sodda		
	A	7, -4, 3.			
	B	6, -4, 3.			
	C	5, -4, 3.			
	D	3, -4, 3.			
7.		Darajasi ikkidan katta bo'lmagan P_2 ko'phadlar chiziqli fazosida $P(t)=7-4t+3t^2$ vektorning quyidagi bazisdagi $e_1=1,\ e_2=t-1,$ $e_3=(t-1)^2$ koordinatalarini toping.	sodda		
	A	6, 2, 3;			
	B	5, 2,- 3;			
	C	6, 6, 3;			
	D	8, 2, 0;			
8.		Darajasi ikkidan katta bo'lmagan P_2 ko'phadlar chiziqli fazosida $P(t)=7-4t+3t^2$ vektorning quyidagi bazisdagi $e_1=1,\ e_1=t+1,$ $e_3=(t+1)^2$ kordinatalarini toping.	sodda		
	A	14, -10, 3;			
	B	1, -10, 3;			
	C	14, 10, 13;			
	D	14, -10, -13;			
9.		Chiziqli operator A $e_1,\ e_2$ bazisda	o`rta		

		$\begin{pmatrix} 2 & 3 \\ 7 & 5 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping			
	A	$\begin{pmatrix} 5 & 7 \\ 3 & 2 \end{pmatrix}$			
	B	$\begin{pmatrix} 5 & 3 \\ 7 & 5 \end{pmatrix}$			
	C	$\begin{pmatrix} 2 & 3 \\ 3 & 5 \end{pmatrix}$			
	D	$\begin{pmatrix} 2 & -3 \\ 7 & 5 \end{pmatrix}$			
10.		Skalyar ko'paytma kiritilmagan fazo…….	sodda		
	A	Affin fazo deyiladi			
	B	Skalyar fazo deyiladi			
	C	Normallangan fazo deyiladi			
	D	Normallanmagan fazo deyiladi			
11.		$\mathcal{E}$ Evklid fazosida x vektorning uzunligi quyidagiga teng.	sodda		
	A	$\|X\| = \sqrt{(x,x)}$			
	B	$\|X\| = (x,x)$			
	C	$\|X\| = (x,x)^2$			
	D	$\|X\| = (x,x)^3$			
12.		Darajasi uchdan katta bo'lmagan P_3 ko'phadlar chiziqli fazosida $P(t) = 3 + 2t - t^2 + t^3$ vektorning quyidagi bazisdagi $e_1 = 1$, $e_2 = t - 1$, $e_3 = (t-1)^2$, $e_4 = (t-1)^3$ koordinatalarini toping	sodda		
	A	5, 3, 2,1;			
	B	4, 3, 2,1;			
	C	3, 3, 2,1;			
	D	2, 3, 2,1;			
13.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 2 & 3 \\ 4 & 1 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping	o`rta		

	A	$\begin{pmatrix}1 & 4\\3 & 2\end{pmatrix}$			
	B	$\begin{pmatrix}4 & 6\\5 & 1\end{pmatrix}$			
	C	$\begin{pmatrix}4 & 6\\5 & 13\end{pmatrix}$			
	D	$\begin{pmatrix}4 & 16\\15 & 1\end{pmatrix}$			
14.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix}1 & 5\\6 & 4\end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix}4 & 6\\5 & 1\end{pmatrix}$			
	B	$\begin{pmatrix}4 & 6\\5 & 4\end{pmatrix}$			
	C	$\begin{pmatrix}4 & -6\\5 & -1\end{pmatrix}$			
	D	$\begin{pmatrix}4 & 6\\0 & 1\end{pmatrix}$			
15.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix}2 & 9\\7 & 5\end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix}5 & 7\\9 & 2\end{pmatrix}$			
	B	$\begin{pmatrix}4 & 6\\5 & 1\end{pmatrix}$			
	C	$\begin{pmatrix}4 & 6\\7 & 1\end{pmatrix}$			
	D	$\begin{pmatrix}0 & 6\\51 & 1\end{pmatrix}$			
16.		Chiziqli operator A e_1, e_2 базисда $\begin{pmatrix}3 & 4\\8 & 1\end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		

	A	$\begin{pmatrix} 1 & 8 \\ 4 & 3 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 6 \\ 5 & 1 \end{pmatrix}$			
	C	$\begin{pmatrix} 14 & -6 \\ 5 & 11 \end{pmatrix}$			
	D	$\begin{pmatrix} 0 & 6 \\ 5 & 10 \end{pmatrix}$			
17.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 9 & 7 \\ 6 & 5 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 5 & 6 \\ 7 & 9 \end{pmatrix}$			
	B	$\begin{pmatrix} 3 & 36 \\ 5 & 13 \end{pmatrix}$			
	C	$\begin{pmatrix} 4 & 62 \\ 15 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} -4 & 6 \\ 5 & -1 \end{pmatrix}$			
18.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 3 & 2 \\ 7 & 1 \end{pmatrix}$. matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 1 & 7 \\ 2 & 3 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 16 \\ 15 & 11 \end{pmatrix}$			
	C	$\begin{pmatrix} 5 & 6 \\ 4 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 7 & 8 \\ 5 & 1 \end{pmatrix}$			
19.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 3 & 2 \\ 7 & 4 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		

	A	$\begin{pmatrix} 4 & 7 \\ 2 & 3 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 6 \\ 5 & 1 \end{pmatrix}$			
	C	$\begin{pmatrix} 4 & 6 \\ 5 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 4 & 6 \\ 5 & 1 \end{pmatrix}$			
20.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 9 & 7 \\ 6 & 3 \end{pmatrix}$. matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 3 & 6 \\ 7 & 9 \end{pmatrix}$			
	B	$\begin{pmatrix} 2 & 6 \\ 5 & 4 \end{pmatrix}$			
	C	$\begin{pmatrix} 4 & 9 \\ 3 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 4 & 6 \\ 4 & 1 \end{pmatrix}$			
21.		Biror bazisda quyidagi $\boldsymbol{A} = \begin{pmatrix} 5 & 4 \\ 8 & 9 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlari va xos vektorlarini toping	qiyin		
	A	$\lambda_1 = 1;\ \lambda_2 = 13$ $X_1 = c_1 \begin{pmatrix} 1 \\ -1 \end{pmatrix}\ \lambda_1 = 1$ $X_2 = c_2 \begin{pmatrix} 1 \\ 2 \end{pmatrix}\ \lambda_1 = 13$			
	B	$\lambda_1 = 1;\ \lambda_2 = 13$ $X_1 = c_1 \begin{pmatrix} -1 \\ -1 \end{pmatrix}\ \lambda_1 = 1$ $X_2 = c_2 \begin{pmatrix} 1 \\ 2 \end{pmatrix}\ \lambda_1 = 13$			
	C	$\lambda_1 = 1;\ \lambda_2 = 13$ $X_1 = c_1 \begin{pmatrix} 1 \\ -1 \end{pmatrix}\ \lambda_1 = 1$ $X_2 = c_2 \begin{pmatrix} 11 \\ 21 \end{pmatrix}\ \lambda_1 = 13$			
	D	$\lambda_1 = 1;\ \lambda_2 = 13$			

		$X_1 = c_1\begin{pmatrix} 11 \\ -11 \end{pmatrix}\ \lambda_1 = 1$ $X_2 = c_2\begin{pmatrix} 1 \\ 2 \end{pmatrix}\ \lambda_1 = 13$			
22.		Biror bazisda quyidagi $A = \begin{pmatrix} 6 & -4 \\ 4 & -2 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlari va xos vektorini toping	qiyin		
	A	$\lambda_1 = \lambda_2 = 2,$ $X = c\begin{pmatrix} 1 \\ 1 \end{pmatrix}$			
	B	$\lambda_1 = \lambda_2 = 2,$ $X = c\begin{pmatrix} 1 \\ 1 \end{pmatrix}$			
	C	$\lambda_1 = \lambda_2 = 2,$ $X = c\begin{pmatrix} 1 \\ 1 \end{pmatrix}$			
	D	$\lambda_1 = \lambda_2 = 2,$ $X = c\begin{pmatrix} 1 \\ 1 \end{pmatrix}$			
23.		Agar quyidagi tenglik o’rinli bo’lsa, noldan farqli bo’lgan $x \in \mathcal{X}$ vektor A operatorning xos vektori deyiladi.	sodda		
	A	$AX = \lambda X$,bunda λ - xos son			
	B	$AX = -\lambda X$,bunda λ - xos son			
	C	$AX = 2\lambda X$,bunda λ - xos son			
	D	$AX = 3\lambda X$,bunda λ - xos son			
24.		Biror bazisda quyidagi $A = \begin{pmatrix} 1 & 2 \\ 2 & 1 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlarini va xos vektorlarini toping	qiyin		
	A	$\lambda_1 = 3; \lambda_2 = -1$ $X_1 = c_1\begin{pmatrix} 1 \\ 1 \end{pmatrix}\ \lambda_1 = 3$ uchun $X_2 = c_2\begin{pmatrix} -1 \\ 1 \end{pmatrix}\ \lambda_1 = -1$uchun			
	B	$\lambda_1 = 3; \lambda_2 = -1$ $X_1 = c_1\begin{pmatrix} 1 \\ 1 \end{pmatrix}\ \lambda_1 = 3$ uchun			

		$X_2 = c_2\begin{pmatrix} -1 \\ 1 \end{pmatrix}$ $\lambda_1 = -1$uchun			
	C	$\lambda_1 = 3; \lambda_2 = -1$ $X_1 = c_1\begin{pmatrix} 1 \\ 1 \end{pmatrix}$ $\lambda_1 = 3$ uchun $X_2 = c_2\begin{pmatrix} -1 \\ 1 \end{pmatrix}$ $\lambda_1 = -1$uchun			
	D	$\lambda_1 = 3; \lambda_2 = -1$ $X_1 = c_1\begin{pmatrix} 1 \\ 1 \end{pmatrix}$ $\lambda_1 = 3$ uchun $X_2 = c_2\begin{pmatrix} -1 \\ 1 \end{pmatrix}$ $\lambda_1 = -1$uchun			
25.		$\boldsymbol{R^n}$ fazodagi ixtiyoriy vektorlar sistemasi shu fazoning bazisi deyiladi,agar bu vetorlar uchun quyidagi shartlar bajarilsa a)bu sistemadagi vektorlarchiziqli bog'liq emas b) $\boldsymbol{R^n}$ fazodagi ixtiyoriy vector yuqoridagi sistemsdagi vektorlarning chiziqli kombinatsiyasidan iborat bo'ladi	sodda		
	A	To'g'ri			
	B	Noto'g'ri			
	C	Faqat a) punkti yetarli			
	D	Faqat b) punkti yetarli			
26.		$\boldsymbol{R^n}$ fazoning $\boldsymbol{n}$ ta vektorlar sistemasi bog'liq emas deyiladi, agar bu vektorlar sistemasini komponentalaridan tuzilgan matrisaning determinanti.....	sodda		
	A	Noldan farqli bo'lsa			
	B	Nolga teng bo'lsa			
	C	Birga teng bo'lsa			
	D	Musbat bo'lsa			
27.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 5 & 4 \\ 3 & 2 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 2 & 3 \\ 4 & 5 \end{pmatrix}$			

	B	$\begin{pmatrix} 4 & 16 \\ 4 & 1 \end{pmatrix}$			
	C	$\begin{pmatrix} 4 & 16 \\ 15 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 14 & 16 \\ 5 & 11 \end{pmatrix}$			
28.		Biror bazisda quyidagi $\boldsymbol{A} = \begin{pmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 0 & 0 & 1 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlarini toping	qiyin		
	A	$\lambda_1 = 1\, \lambda_2 = 1\, \lambda_3 = 3$			
	B	$\lambda_1 = 1\, \lambda_2 = 2\, \lambda_3 = 3$			
	C	$\lambda_1 = 1\, \lambda_2 = 1\, \lambda_3 = 2$			
	D	$\lambda_1 = 2\, \lambda_2 = 2\, \lambda_3 = 1$			
29.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 1 & 2 \\ 3 & 8 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 8 & 3 \\ 2 & 1 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 16 \\ 15 & 11 \end{pmatrix}$			
	C	$\begin{pmatrix} 4 & 6 \\ 8 & 10 \end{pmatrix}$			
	D	$\begin{pmatrix} 6 & 6 \\ 5 & 1 \end{pmatrix}$			
30.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 5 & 1 \\ 2 & 3 \end{pmatrix}$. matrisaga ega bu operatorning e_2, e_1 bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 3 & 2 \\ 1 & 5 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 6 \\ 5 & 1 \end{pmatrix}$			

	C	$\begin{pmatrix} 14 & 6 \\ 5 & 11 \end{pmatrix}$			
	D	$\begin{pmatrix} 4 & 16 \\ 15 & 1 \end{pmatrix}$			
31.		Agar kvadrat matrisaning elementlari bosh dioganalga nisbatan kompleks qo'shma elementlardan iborat bo'lsa bunday matrisaga Ermit matrisasi deyiladi	sodda		
	A	To'g'ri			
	B	Noto'g'ri			
	C	Bazan to'g'ri			
	D	Har doim ham emas			
32.		Ermit matrisasininig dioganal elementlari haqiqiy sonlardan iborat.	sodda		
	A	To'g'ri			
	B	Noto'g'ri			
	C	Bazan to'g'ri			
	D	Har doim ham emas			
33.		$X = R^3$ fazoda A chiziqli operator e_1, e_2, e_3 bazisda $A = \begin{pmatrix} 3 & 2 & 4 \\ -1 & 5 & 6 \\ 1 & 8 & 2 \end{pmatrix}$ matrisa bilan berilgan. $x = 4e_1 - 3e_2 + e_3$ vektornning $y = A(x)$ aksini toping	содда		
	A	$Y = \begin{pmatrix} 10 \\ -13 \\ -18 \end{pmatrix}$			
	B	$Y = \begin{pmatrix} 10 \\ 13 \\ 18 \end{pmatrix}$			
	C	$Y = \begin{pmatrix} 10 \\ -1 \\ -1 \end{pmatrix}$			
	D	$Y = \begin{pmatrix} 10 \\ -10 \\ -10 \end{pmatrix}$			
34.		$X = R^2$ fazoda A chiziqli operator e_1, e_2 bazisda	sodda		

		$A=\begin{pmatrix}3 & 2\\ -1 & 5\end{pmatrix}$ matrisa bilan berilgan. $x=4e_1-3e_2$ vektorning. $y=A(x)$ aksini toping.			
	A	$Y=\begin{pmatrix}6\\ -19\end{pmatrix}$			
	B	$Y=\begin{pmatrix}-6\\ -19\end{pmatrix}$			
	C	$Y=\begin{pmatrix}6\\ 19\end{pmatrix}$			
	D	$Y=\begin{pmatrix}6\\ -1\end{pmatrix}$			
35.		$X=R^3$ fazoda A chiziqli operator e_1,e_2,e_3 bazisda $\begin{pmatrix}-1 & 0 & 2\\ 2 & 1 & -7\\ 3 & 0 & 1\end{pmatrix}$ matrisa bilan berilgan. $x=2e_1-4e_2-e_3$ vektorning $y=A(x)$ aksini toping.	sodda		
	A	$Y=\begin{pmatrix}-4\\ 7\\ 5\end{pmatrix}$			
	B	$Y=\begin{pmatrix}4\\ 7\\ 5\end{pmatrix}$			
	C	$Y=\begin{pmatrix}4\\ -7\\ 5\end{pmatrix}$			
	D	$Y=\begin{pmatrix}4\\ 7\\ -5\end{pmatrix}$			
36.		Biror bazisda quyidagi $A=\begin{pmatrix}0 & 1 & 0\\ -4 & 4 & 0\\ -2 & 1 & 2\end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlarini toping.	qiyin		
	A	$\lambda_1=2\ \lambda_2=2\ \lambda_3=2$			
	B	$\lambda_1=3\ \lambda_2=1\ \lambda_3=1$			
	C	$\lambda_1=4\ \lambda_2=1\ \lambda_3=1$			
	D	$\lambda_1=-1\ \lambda_2=1\ \lambda_3=1$			
37.		$\mathcal{X}$ fazoda A va B - operatorlar berilgan bo'lsin. Agar ixtiyoriy	sodda		

		$x \in \mathcal{X}$ lar uchun $Ax = Bx$ tenglik bajarilsa, A va B operator teng deyiladi			
	A	To'g'ri			
	B	Noto'g'ri			
	C	Bazan to'g'ri			
	D	Har doim ham emas			
38.		Biror bazisda quyidagi $A = \begin{pmatrix} 1 & 0 & 0 \\ 1 & 2 & 1 \\ -1 & 0 & 1 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlarini toping.	qiyin		
	A	$\lambda_1 = 1\ \lambda_2 = 1\ \lambda_3 = 2$			
	B	$\lambda_1 = -1\ \lambda_2 = 1\ \lambda_3 = 2$			
	C	$\lambda_1 = 10\ \lambda_2 = 1\ \lambda_3 = 2$			
	D	$\lambda_1 = 3\ \lambda_2 = 1\ \lambda_3 = 2$			
39.		Biror bazisda quyidagi $A = \begin{pmatrix} 1 & 2 & 0 \\ 0 & 2 & 0 \\ -2 & -2 & 1 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlarini toping.	qiyin		
	A	$\lambda_1 = 1, \lambda_2 = 1,\ \lambda_3 = 2$			
	B	$\lambda_1 = 1, \lambda_2 = 6, \lambda_3 = 21$			
	C	$\lambda_1 = 1, \lambda_2 = 7, \lambda_3 = 21$			
	D	$\lambda_1 = 1, \lambda_2 = 5, \lambda_3 = 21$			
40.		A chiziqli operator e_1, e_2 bazisda $\begin{pmatrix} 17 & 6 \\ 6 & 8 \end{pmatrix}$.matrisaga ega. Bu operatorning $e_1 - 2e_2$, $2e_1 + e_2$. bazisdagi matrisasini toping.	o`rta		
	A	$\begin{pmatrix} 5 & 0 \\ 0 & 20 \end{pmatrix}$			
	B	$\begin{pmatrix} 4 & 16 \\ 5 & 11 \end{pmatrix}$			

	C	$\begin{pmatrix} 14 & 6 \\ 15 & 1 \end{pmatrix}$			
	D	$\begin{pmatrix} 5 & 6 \\ 5 & 15 \end{pmatrix}$			
		$X = R^2$ fazoda A chiziqli operator e_1, e_2 bazisda $A = \begin{pmatrix} 3 & 4 \\ 5 & 6 \end{pmatrix}$ matrisa bilan berilgan $x = 2e_1 + 3e_2$ vektorning $y = A(x)$ aksini toping.	sodda		
41.	A	$Y = \begin{pmatrix} 18 \\ 28 \end{pmatrix}$			
	B	$Y = \begin{pmatrix} 8 \\ 28 \end{pmatrix}$			
	C	$Y = \begin{pmatrix} 18 \\ 18 \end{pmatrix}$			
	D	$Y = \begin{pmatrix} 28 \\ 28 \end{pmatrix}$			
42.		$X = R^3$ fazoda A chiziqli operator e_1, e_2, e_3 bazisda $\begin{pmatrix} 1 & 0 & 2 \\ 2 & 1 & 7 \\ 3 & 0 & 1 \end{pmatrix}$ matrisa bilan berilgan. $x = e_1 + 2e_2 + e_3$ vektorning. $y = A(x)$ aksini toping	sodda		
	A	$Y = \begin{pmatrix} 3 \\ 11 \\ 4 \end{pmatrix}$			
	B	$Y = \begin{pmatrix} 4 \\ 6 \\ 7 \end{pmatrix}$			
	C	$Y = \begin{pmatrix} 14 \\ 36 \\ 7 \end{pmatrix}$			
	D	$Y = \begin{pmatrix} 4 \\ 36 \\ 17 \end{pmatrix}$			
43.		$X = R^3$ fazoda A chiziqli operator e_1, e_2, e_3 bazisda	sodda		

		$\begin{pmatrix} 2 & 0 & 2 \\ 1 & 1 & 3 \\ 4 & 0 & 1 \end{pmatrix}$ $x = e_1 + 2e_2 + e_3$ vektorning $y = A(x)$ aksini toping			
	A	$Y = \begin{pmatrix} 4 \\ 6 \\ 5 \end{pmatrix}$			
	B	$Y = \begin{pmatrix} 4 \\ 0 \\ 5 \end{pmatrix}$			
	C	$Y = \begin{pmatrix} -4 \\ 6 \\ 5 \end{pmatrix}$			
	D	$Y = \begin{pmatrix} 4 \\ -6 \\ 5 \end{pmatrix}$			
44.		Darajasi ikkidan katta bo'lmagan P_2 ko'phadlar chiziqli fazosida $P(t) = 7 - 4t + 3t^2$ vektorning quyidagi bazisdagi $e_1 = 1$, $e_2 = t - 1$, $e_3 = (t-1)^2$ koordinatalarini toping.	sodda		
	A	6, 2, 3;			
	B	5, 2, 3;			
	C	6, 4, 3;			
	D	6, 3, 3;			
45.		Darajasi ikkidan katta bo'lmagan P_2 ko'phadlar chiziqli fazosida $P(t) = 7 - 4t + 3t^2$ vektorning quyidagi bazisdagi $e_1 = 1$, $e_2 = t + 1$, $e_3 = (t+1)^2$ koordinatalarini toping.	sodda		
	A	14, -10, 3;			
	B	4, -10, 3;			
	C	14, 0, 3;			
	D	14, -10, 13;			
46.		Chiziqli operator A e_1, e_2 bazisda $\begin{pmatrix} 1 & 2 \\ 3 & 8 \end{pmatrix}$ matrisaga ega. Bu operatorning e_2, e_1 bazisdagi matrisasini toping	O'rta		

	A	$\begin{pmatrix} 8 & 3 \\ 2 & 1 \end{pmatrix}$			
	B	$\begin{pmatrix} 0 & 3 \\ 2 & 1 \end{pmatrix}$			
	C	$\begin{pmatrix} 18 & 3 \\ 2 & 10 \end{pmatrix}$			
	D	$\begin{pmatrix} -8 & 3 \\ 2 & -1 \end{pmatrix}$			
47.		Biror bazisda quyidagi $A = \begin{pmatrix} 0 & 1 & 0 \\ -4 & 4 & 0 \\ -2 & 1 & 2 \end{pmatrix}$ matrisa bilan berilgan chiziqli operatorning xos qiymatlarini toping.	qiyin		
	A	$\lambda_1 = 2\ \lambda_2 = 2\ \lambda_3 = 2$			
	B	$\lambda_1 = 1\ \lambda_2 = 2\ \lambda_3 = 2$			
	C	$\lambda_1 = 1\ \lambda_2 = 3\ \lambda_3 = 3$			
	D	$\lambda_1 = 1\ \lambda_2 = 1\ \lambda_3 = 3$			
48.		$X = R^3$ fazoda **A** chiziqli operator e_1, e_2, e_3 bazisda $\begin{pmatrix} 1 & 0 & 2 \\ 2 & 1 & 7 \\ 3 & 0 & 1 \end{pmatrix}$ matrisa bilan berilgan. $x = e_1 + 2e_2 + 3e_3$-vektorni $y = A(x)$ aksini toping.	sodda		
	A	$Y = \begin{pmatrix} 7 \\ 25 \\ 6 \end{pmatrix}$			
	B	$Y = \begin{pmatrix} 27 \\ 25 \\ 6 \end{pmatrix}$			
	C	$Y = \begin{pmatrix} 17 \\ 25 \\ 16 \end{pmatrix}$			
	D	$Y = \begin{pmatrix} -7 \\ 25 \\ -6 \end{pmatrix}$			
49.		Darajasi uchdan katta bo'lmagan P_3 ko'phadlar chiziqli fazosida $P(t) = 3 + 2t - t^2 + t^3$ vektorning quyidagi bazisdagi	sodda		

		$e_1=1$, $e_2=t-1$, $e_3=(t-1)^2$, $e_4=(t-1)^3$ koordinatalrini toping.			
	A	5, 3, 2,1;			
	B	4, 3, 2,1;			
	C	3, 3, 2,1;			
	D	0, 3, 2,1;			
50.		$X=R^3$ fazoda A chiziqli operator e_1,e_2,e_3 bazisda $\begin{pmatrix}1&0&2\\2&1&7\\3&0&1\end{pmatrix}$ matrisa bilan berilgan $x=2e_1+4e_2+e_3$ **vektorni** $y=A(x)$ -aksini toping.			
	A	$Y=\begin{pmatrix}4\\36\\7\end{pmatrix}$			
	B	$Y=\begin{pmatrix}7\\25\\6\end{pmatrix}$			
	C	$Y=\begin{pmatrix}17\\25\\6\end{pmatrix}$			
	D	$Y=\begin{pmatrix}27\\25\\6\end{pmatrix}$			