Kattaqo‘rg‘on davlat pedagogika instituti Aniq va tabiiy fanlar fakulteti
2-bosqich Amaliy matematika yo‘nalishi talabalariga 3-semestr uchun
« Matematik analiz » fanidan yakuniy nazorat savollari
Imtihon shakli: yozma

TASDIQLAYMAN
O‘quv-uslubiy boshqarma boshlig‘i
_____ I.Madatov
2026-yil 14-oktabr

№	**1-QISM** “NAZARIY SAVOLLAR 1” deb nomalanadi va semestrda o‘qitilishi rejalashtirilgan mavzularning kirish va 1-reja qismidan asosan nazariy savollardan iborat bo’ladi (tayanch iborasi bo’ladi).	**2-QISM** “NAZARIY SAVOLLAR 2” deb nomalanadi va semestrda o‘qitilishi rejalashtirilgan mavzularning 2-rejasidan asosan mulohazaviy savollardan iborat bo’ladi (tayanch iborasi bo’ladi).	**3-QISM** “AMALIY SAVOLLAR 1” deb nomalanadi va semestrda o‘qitilishi rejalashtirilgan mavzularning asosan misol, masala kabi savollardan iborat bo’ladi (tayanch iborasi bo’lmaydi).	**4-QISM** “AMALIY SAVOLLAR 2” deb nomalanadi va semestrda o‘qitilishi rejalashtirilgan mavzularning misol hamda masala kabi savollardan iborat bo’ladi (tayanch iborasi bo’lmaydi).	**5-qism** “AMALIY SAVOLLAR 3” deb nomalanadi va semestrda o‘qitilishi rejalashtirilgan mavzularning misol masala savollardan iborat bo’ladi (tayanch iborasi bo’lmaydi).
1	Sonli qator deb nimaga aytiladi?	Sonli qatorlarning yaqinlashuvchili deganda nimani tushunasiz?	$\sum_{n=1}^{\infty}\frac{1}{2^n}$ sonli qatorning yaqinlashuvchiligini aniqlang va uning yig‘indisini toping.	$\sum_{n=1}^{\infty}\frac{1}{3^n}$ sonli qatorning yaqinlashuvchiligini aniqlang va uning yig‘indisini toping.	$\sum_{n=1}^{\infty}\frac{1}{4^n}$ sonli qatorning yaqinlashuvchiligini aniqlang va uning yig‘indisini toping.

	Yaqinlashuvchi sonli qatorlarning qanday xossalarini bilasiz?	Sonli qatorlar yaqinlashuvchilining zaruruiy va yetarli shartlari qanday?	$\sum_{n=1}^{\infty}\frac{1}{n(n+1)}$ sonli qatorning yaqinlashuvchiligini aniqlang va uning yig‘indisini toping.	$\sum_{n=1}^{\infty}\frac{1}{n(n+2)}$ sonli qatorning yaqinlashuvchiligini aniqlang va uning yig‘indisini toping.	$\sum_{n=1}^{\infty}\frac{1}{(n+1)(n+2)}$ sonli qatorning yaqinlashuvchiligini aniqlang va uning yig‘indisini toping.
2	Musbat hadli qator deb nimaga aytiladi?	Musbat hadli qatorlar uchun yaqinlashishning zaruriy va yetarli shartlari qanday?	$\sum_{n=1}^{\infty}\frac{1}{n^2}$ musbat hadli qatorni yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\frac{3^n}{n!}$ musbat hadli qatorni yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\frac{2^n}{n!}$ musbat hadli qatorni yaqinlashishga tekshiring
	Musbat hadli qatorlar uchun Dalamber alomatini ayting?	Musbat hadli qatorlar uchun Koshi alomatini ayting?	$\sum_{n=1}^{\infty}\left(\frac{3}{5}\right)^n$ musbat hadli qatorni yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\left(\frac{4}{5}\right)^n$ musbat hadli qatorni yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\frac{n!}{2^n}$ musbat hadli qatorni yaqinlashishga tekshiring
3	Absolyut yaqinlashuvchi qator deb nimaga aytiladi?	Shartli yaqinlashuvchi qator deb nimaga aytiladi	$\sum_{n=1}^{\infty}\frac{(-1)^{n+1}}{2^n}$ qatorn absolyut va shartli yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\frac{(-1)^{n+1}}{n^2}$ qatorn absolyut va shartli yaqinlashishgatekshiring	$\sum_{n=1}^{\infty}\frac{(-1)^n}{n^2}$ qatorn absolyut va shartli yaqinlashishgatekshiring
	Absolyut yaqinlashuvchi qatorga misol keltiring?	Shartli yaqinlashuvchi qatorga misol keltiring?	$\sum_{n=1}^{\infty}\frac{(-1)^{n+1}}{\sqrt{n}}$ qatorn absolyut va shartli yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\frac{(-1)^n}{n^3}$ qatorn absolyut va shartli yaqinlashishgatekshiring	$\sum_{n=1}^{\infty}\frac{(-1)^{n+1}}{n}$ qatorn absolyut va shartli yaqinlashishgatekshiring

4	Ixtiyoriy hadli qatorlar uchun Dirixle alomati qanday	Ixtiyoriy hadli qatorlar uchun Lebnits alomati qanday	$1-\frac{1}{\sqrt{2}}+\frac{1}{\sqrt{3}}-\frac{1}{\sqrt{4}}+\cdots$ qatorni yaqinlashishga tekshiring	$\sum_{n=1}^{\infty}\frac{\sin n}{\sqrt[3]{n}}$ qatorni yaqinlashishga tekshiring	Ushbu $\sum_{n=1}^{\infty}\frac{\cos n}{n}$ qatorni yaqinlashishga tekshiring
	Ixtiyoriy hadli qatorlar uchun Abel alomati qanday	Dalamber alomati yordamida qatorning yaqinlashishini qanday tekshirish mumkin	Ushbu $\sum_{n=1}^{\infty}\frac{(-1)^n}{n}$ qatorni yaqinlashishga tekshiring	Ushbu $\sum_{n=1}^{\infty}\frac{(-1)^n}{n^2}$ qatorni yaqinlashishga tekshiring	Ushbu $\sum_{n=1}^{\infty}\frac{2^n}{n!}$ qatorni yaqinlashishga tekshiring
5	R^n fazo deb nimaga aytiladi	R^n fazoda ochiq to‘plam deb qanday to‘plamga aytiladi	R^n fazoda ushbu $\left\{x^{(n)}\right\}=\left\{\frac{1}{n},\frac{1}{n},\dots,\frac{1}{n}\right\}$ ketma-ketlikning limiti $a=(0,0,\dots,0)$ ekanligini ko’rsating.	R^2 fazoda ushbu $\left\{x^{(n)}\right\}=\left\{\frac{1}{n},\frac{10}{n}\right\}$ ketma-ketlikning limiti $a=(0,0)$ ekanligini ko’rsating.	R^2 fazoda ushbu $\left\{x^{(n)}\right\}=\left\{\frac{3}{n},\frac{1}{n^2}\right\}$ ketma-ketlikning limiti $a=(0,0)$ ekanligini ko’rsating.
	R^n fazoda yopiq to‘plam deb qanday to‘plamga aytiladi	R^n fazoda ketma-ketlikning limiti deb nimaga aytiladi	R^2 fazoda ushbu $\left\{x^{(n)}\right\}=\left\{\frac{3n}{2n-1},\frac{2-n}{2+n}\right\}$ ketma-ketlikning limiti $a=$	R^2 fazoda ushbu $\left\{x^{(n)}\right\}=\left\{n\left(\sqrt[n]{5}-1\right),\left(\frac{n+2}{n}\right)^n\right\}$ ketma-ketlikning limiti $a=(ln5,e^2)$	R^2 fazoda ushbu $\left\{x^{(n)}\right\}=\left\{\frac{1}{n},\frac{sinn}{n}\right\}$ ketma-ketlikning limiti $a=(0,0)$ ekanligini ko’rsating.

			$\left(\frac{3}{2},-1\right)$ ekanligini ko'rsating.	ekanligini ko'rsating.	
6	Ko'p o'zgaruvchili funksiya tushunchasi va unga oid misollar	Ko'p o'zgaruvchili funksiyaning aniqlanish sohasi deb nimaga aytiladi?	Funksiyaning aniqlanish sohasini toping: $u=\sqrt{1-x^2}+\sqrt{y^2-}$	Quyidagi $\lim\limits_{x\to+\infty}\left(\lim\limits_{y\to\infty}\sin\frac{\pi x}{2x+y}\right.$ ikki karrali limitni hisoblang.	Funksiyaning aniqlanish sohasini toping: $u=\sqrt{9-x^2-y^2}$
	Ko'p o'zgaruvchili funksiya limiti ta'riflari (Geyne, Koshi ta'riflari)	Ko'p o'zgaruvchili funksiyaning limiti deb nimaga aytiladi	Quyidagi $\lim\limits_{x\to1}\left(\lim\limits_{y\to0}\log_x(x+y)\right)$ ikki karrali limitni hisoblang.	Quyidagi $\lim\limits_{x\to0}\left(\lim\limits_{y\to a}\frac{\sin xy}{x}\right)$ ikki karrali limitni hisoblang.	Quyidagi $\lim\limits_{x\to1}\left(\lim\limits_{y\to0}\frac{ln(x+e^y)}{\sqrt{x^2+y^2}}\right)$ ikki karrali limitni hisoblang.
7	Ko'p o'zgaruvchili funksiyaning uzluksizligi deb nimaga aytiladi	Ko'p o'zgaruvchili funksiyaning tekis uzluksizligi deb nimaga aytiladi	Ushbu $f(x,y)=\frac{2x+3}{x^2+y^2+1}$ funksiyaning ixtiyoriy $(x_0,y_0)\in R^2$ nuqtada uzluksiz bo'lishini ko'rsating.	Ushbu $f(x,y)=\frac{x+2}{x^2+y^2+3}$ funksiyaning ixtiyoriy $(x_0,y_0)\in R^2$ nuqtada uzluksiz bo'lishini ko'rsating.	Ushbu $f(x,y)=\frac{y+3}{x^2+y^2+4}$ funksiyaning ixtiyoriy $(x_0,y_0)\in R^2$ nuqtada uzluksiz bo'lishini ko'rsating.
	Ko'p o'zgaruvchili funksiyaning biror nuqtada uzluksizlik ta'rifini ayting	Ko'p o'zgaruvchili funksiya uchun uzliksizlik va tekis uzluksizlik deganda nimani tushunasiz	Ushbu $f(x,y)=\begin{cases}x^2+y^2, agar\ (x,\\ 1, agar\ (x,y)\end{cases}$ funksiyaning (0,0) nuqtada	Ushbu $f(x,y)=x+y$ funksiyaning ixtiyoriy $(x_0,y_0)\in R^2$	Ushbu $f(x,y)=x-y$ funksiyaning ixtiyoriy $(x_0,y_0)\in R^2$ nuqtada uzluksiz bo'lishini ko'rsating.

			uzilishga ega bo’lishini ko’rsating.	nuqtada uzluksiz bo’lishini ko’rsating.	
8	Ko‘p o‘zgaruvchili funksiyaning xususiy hosilasi deb nimaga aytiladi	Ikki o‘zgaruvchili funksiyaning xususiy hosilasi deganda nimani tushunasiz?	Ushbu $f(x,y)=x^3+y^2$ ikki o‘zgaruvchili funksiyaning xususiy hosilalarini hisoblang.	Ushbu $f(x,y)=e^{x^2y}$ ikki o‘zgaruvchili funksiyaning xususiy hosilalarini hisoblang.	Ushbu $f(x,y)=2x^3-y$ ikki o‘zgaruvchili funksiyaning xususiy hosilalarini hisoblang.
	Uch o‘zgaruvchili funksiyaning to‘liq differensiali deb nimaga aytiladi	Ikki o‘zgaruvchili funksiyaning to‘liq differensiali deb nimaga aytiladi	Ushbu $f(x,y)=\sin(x+y)$ ikki o‘zgaruvchili funksiyaning xususiy hosilalarini hisoblang.	Ushbu $f(x,y)=\cos(x^2+y^2)$ ikki o‘zgaruvchili funksiyaning xususiy hosilalarini hisoblang.	Ushbu $f(x,y)=x^3+y^2$ ikki o‘zgaruvchili funksiyaning to’liq differensialini toping.
9	Ko‘p o‘zgaruvchili funksiyaning birinchi tartibli xususiy hosilasi deb nimaga aytiladi	Ko‘p o‘zgaruvchili funksiyaning ikkinchi tartibli to’liq differensiali deb nimaga aytiladi	Ushbu $f(x,y)=ln(x^2+y^2)$ funksiyaning barcha ikkinchi tartibli xususiy	Ushbu $f(x,y)=x^2+y^2$ funksiyaning barcha ikkinchi tartibli xususiy hosilalarini toping.	Ushbu $f(x,y)=x^3+y^2$ funksiyaning barcha ikkinchi tartibli xususiy hosilalarini toping.

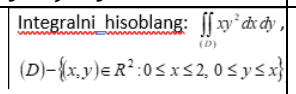
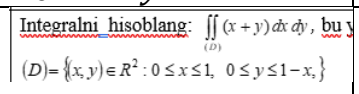
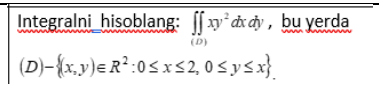
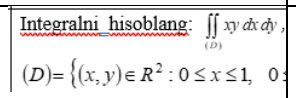
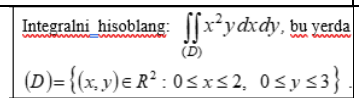
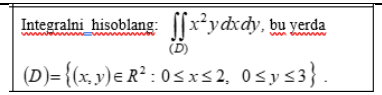
			hosilalarini toping.		
	Ko‘p o‘zgaruvchili funksiyaning ikkinchi tartibli xususiy hosilasi deb nimaga aytiladi	Ko‘p o‘zgaruvchili funksiyaning uchunchi tartibli to’liq differensiali deb nimaga aytiladi	Ushbu $f(x,y)=\sin(x-y)$ funksiyaning barcha ikkinchi tartibli xususiy hosilalarini toping.	Ushbu $f(x,y)=\cos(x+2y)$ funksiyaning barcha ikkinchi tartibli xususiy hosilalarini toping.	Ushbu $f(x,y)=\sin(2x+3y)$ funksiyaning barcha ikkinchi tartibli xususiy hosilalarini toping.
10	Murakkab funksiyaning ikkinchi tartibli differensiali qanday formula orqali hisoblanadi	Murakkab funksiyaning uchinchi tartibli differensiali qanday formula orqali hisoblanadi	Ushbu murakkab $f(x)=\sin(x^2)$ funksiyaning ikkinchi tartibli to’liq differensialini toping	Ushbu murakkab $f(x)=cos(x^3)$ funksiyaning ikkinchi tartibli to’liq differensialini toping	Ushbu murakkab $f(x)=(x^2+1)^2$ funksiyaning ikkinchi tartibli to’liq differensialini toping
	Murakkab funksiyaning Teylor formulasi qanday	Murakkab funksiya uchun Teylor formulasining Makloren formulasidan farqi nimada	Ushbu murakkab $f(x)=(x^2-2)^3$ funksiyaning ikkinchi tartibli to’liq	Ushbu murakkab $f(x)=(2x^2+1)^2$ funksiyaning ikkinchi tartibli to’liq	Ushbu murakkab $f(x)=(3x^2+2)^2$ funksiyaning ikkinchi tartibli to’liq differensialini toping

			differensialini toping	differensialini toping	
11	Ikki o‘zgaruvchili funksiyaning ekstremumi deb nimaga aytiladi	Ikki o‘zgaruvchili funksiyaning lokal maksimumi va lokal minimumi qanday aniqlanadi	Ushbu $f(x,y)=x^2+xy+y^2-6x-9y$ funksiyani ekstrimumga tekshiring	Ushbu $f(x,y)=2xy-2x-4y$ funksiyani ekstrimumga tekshiring	Ushbu $f(x,y)=x^2+(y-1)^2$ funksiyani ekstrimumga tekshiring
	Ikki o‘zgaruvchili funksiyaning ekstremumini aniqlashda ikkinchi tartibli xususiy hosilalardan qanday foydalaniladi	Ikki o‘zgaruvchili funksiyaning kritik nuqtalari qanday topiladi	Ushbu $f(x,y)=x^3+y^3-3xy$ funksiyani ekstrimumga tekshiring	Ushbu $f(x,y)=xy(1-x-y)$ funksiyani ekstrimumga tekshiring	Ushbu $f(x,y)=xy+\frac{50}{x}+\frac{20}{y}$ funksiyani ekstrimumga tekshiring
12	Funksional ketma-ketlik deb nimaga aytiladi	Funksional ketma-ketlikning tekis yaqinlashuvchanligi haqidagi Koshi kriteriyasini ayting	$f_n(x)=\frac{2nx^2}{1+n+x}, 0\le x\le$ 1funksional ketma-ketlikning limit funksiyasi $f(x)$ ni toping	$f_n(x)=\frac{arctgnx}{1+nx+x^2}, 0<x<+\infty$ funksional ketma-ketlikning limit funksiyasi $f(x)$ ni toping	$f_n(x)=\frac{n+1}{n+x^2}, -\infty<x<+\infty$ funksional ketma-ketlikning limit funksiyasi $f(x)$ ni toping

	Funksional ketma-ketlikning nuqtada yaqinlashuvchanligi deganda nimani tushunasiz	Funksional ketma-ketlikning to'plamda yaqinlashuvchanligi deganda nimani tushunasiz	$f_n(x) = n\sin\frac{1}{nx}, 0 < x < +\infty$ funksional ketma-ketlikning limit funksiyasi $f(x)$ ni toping	$f_n(x) = \frac{n^2x}{1+n^2x}, 0 \le x \le 2$ funksional ketma-ketlikning limit funksiyasi $f(x)$ ni toping	$f_n(x) = \frac{n^2}{x^2+n^2}, -1 \le x \le 1$ funksional ketma-ketlikning limit funksiyasi $f(x)$ ni toping
13	Funksional qator deb nimaga aytiladi	Funksional qatorning nuqtada yaqinlashuvchanligi deganda nimani tushunasiz	$\sum_{n=1}^{\infty}\frac{\cos nx}{n\sqrt[3]{n}}, x \in (-\infty, +\infty)$ funksional qatorni Veyershtrass alomatidan foydalanib tekis yaqinlashuvchi ekanligini ko'rsating.	$\sum_{n=1}^{\infty}\frac{\sin nx}{n^2}, x \in (-\infty, +\infty)$ funksional qatorni Veyershtrass alomatidan foydalanib tekis yaqinlashuvchi ekanligini ko'rsating.	$\sum_{n=1}^{\infty}\frac{\cos nx}{n\sqrt[3]{n}}, x \in (-\infty, +\infty)$ funksional qatorni Veyershtrass alomatidan foydalanib tekis yaqinlashuvchi ekanligini ko'rsating.
	Funksional qatorning tekis yaqinlashuvchanligi haqidagi Veyershtrass alomati qanday	Funksional qatorning tekis yaqinlashuvchanligi deb nimaga aytiladi	Quyidagi funksional qatorlarning ko'rsatilgan oraliqlarda tekis	Quyidagi funksional qatorlarning ko'rsatilgan oraliqlarda tekis	Quyidagi funksional qatorlarning ko'rsatilgan oraliqlarda tekis yaqinlashuvchiligini,

			yaqinlashuvchiligini, Veyershtrass alomatidan foydalanib, isbotlang: $\sum_{n-1}^{\infty}\frac{x^4}{2+\sqrt[3]{n^4x^4}},\ X=(-\infty;+\infty)$.	yaqinlashuvchiligini, Veyershtrass alomatidan foydalanib, isbotlang: $\sum_{n=1}^{\infty}\frac{\cos 3nx}{\sqrt{n^3+x^3}},\quad X=[0;\infty)$.	Veyershtrass alomatidan foydalanib, isbotlang: $\sum_{n-1}^{\infty}\frac{1}{(n+x)^4},\ X=[0;\infty)$.
14	Darajali qator deb nimaga aytiladi	Darajali qatorning yaqinlashish radiusi deb nimaga aytiladi	Quyidagi darajali qatorning yaqinlashish radiusi, yaqinlashish intervali hamda yaqinlashish sohasini toping: $\sum_{n=1}^{\infty}(-1)^{n-1}\frac{(x-3)^{2n}}{n5^n}.$	Quyidagi darajali qatorning yaqinlashish radiusi, yaqinlashish intervali hamda yaqinlashish sohasini toping: $\sum_{n=1}^{\infty}\frac{x^{n-1}}{n3^n\ln n}.$	Quyidagi darajali qatorlarning yig’indilarini hadma-had differensiallash yordamida toping: $\frac{x}{1\cdot 2}+\frac{x^2}{2\cdot 3}+\frac{x^3}{3\cdot 4}+\ldots$.

	Darajali qatorning yaqinlashish radiusini aniqlashda Dalamber alomatini ayting	Darajali qatorning yaqinlashish intervali bilan yaqinlashish sohasi qanday aniqlanadi	Quyidagi darajali qatorning yaqinlashish radiusi, yaqinlashish intervali hamda yaqinlashish sohasini toping: $\sum_{n=1}^{\infty}(-1)^n \frac{x^{2n+1}}{2^{n-1}n\sqrt{n}}$.	Quyidagi darajali qatorning yaqinlashish radiusi, yaqinlashish intervali hamda yaqinlashish sohasini toping: $\sum_{n=1}^{\infty}\frac{[3+(-1)^n]^n}{n}x^n$.	Quyidagi darajali qatorlarning yig'indilarini hadma-had differensiallash yordamida toping: $x+\frac{x^3}{3}+\frac{x^5}{5}+\ldots$.
15	Ikki karrali integral deb nimaga aytiladi	Ikki karrali integral tushunchasi va unga oid misollar	Ikki karrali integralda tartibini o'zgartirib hisoblang: $\int_0^{\pi} dy \int_x^{\pi} \frac{siny}{y} dx$	Ikki karrali integralni taqkroriy integralga keltirishda birinchi va ikkinchi tip sohalarga o'zgartiring: $\int_{-1}^{1} dx \int_{x^2}^{2-x} f(x,y)$	Ikki karrali integralni hisoblang: $\int_1^3 dx \int_{-1}^{2}(4-y^2)dy$
	Ikki karrali integrallarda	Ikki karrali integralni hisoblashda qutb	Ikki karrali integralni	Ikki karrali integralda tartibini	Uch karrali integralni hisoblang:

	o’zgaruvchilarni almashtirish	koorduinatalar sistemasidan foydalanish	hisoblang: $\int_0^3 dx \int_0^2 (4 - y^2) dy$	o’zgartirib hisoblang: $\int_0^1 dy \int_y^1 x^2 e^{xy} dx$	$\int_0^3 dx \int_0^2 dy \int_1^2 (x + y^2 - z)\, dz$
16	Birinchi tur egri chiziqli integral tushunchasi va unga oid misollar	Ikkinchi tur egri chiziqli integral tushunchasi va unga oid misollar			
	Birinchi tur egri chiziqli integralni hisoblash formulasi qanday	Birinchi tur egri chiziqli integralning asosiy xossalari nimalardan iborat			
17	Ikkinchi tur egri chiziqli integral deb nimaga aytiladi	Ikkinchi tur egri chiziqli integralning birinchi tur egri chiziqli integraldan farqi nimada	Quyidagi $\int_L xdx + ydy$ ikkinchi tur egri chiziqli integralni hisoblang. Bunda $L: y = x$ to’g’ri chiziqning $A(0,0)$ va $B(1,1)$ nuqtalari orasidagi kesmasi.	Quyidagi $\int_L x^2 dx + y^2 dy$ ikkinchi tur egri chiziqli integralni hisoblang. Bunda $L: y = x$ to’g’ri chiziqning $A(0,0)$ va $B(2,2)$ nuqtalari orasidagi kesmasi.	Quyidagi $\int_L ydx + xdy$ ikkinchi tur egri chiziqli integralni hisoblang. Bunda $L: y = x^2$ parabolaning $A(0,0)$ va $B(1,1)$ nuqtalari orasidagi qismi.
	Ikkinchi tur egri chiziqli integralni	Ikkinchi tur egri chiziqli integralni	Quyidagi $\int_L xydx +$	Quyidagi $\int_L (x + y)dx + (x - y)dy$	Quyidagi $\int_L -ydx + xdy$ ikkinchi tur egri

	hisoblash formulasi qanday	hisoblashda egri chiziqning yo‘nalishi qanday ahamiyatga ega	x^2dy ikkinchi tur egri chiziqli integralni hisoblang. Bunda $L: y = x$ to’g’ri chiziqning $A(0,0)$ va $B(1,1)$ nuqtalari orasidagi kesmasi.	ikkinchi tur egri chiziqli integralni hisoblang. Bunda $L: y = x$ to’g’ri chiziqning $A(0,0)$ va $B(2,1)$ nuqtalari orasidagi kesmasi.	chiziqli integralni hisoblang. Bunda $L: x^2 + y^2 = 1$.
18	Sirt tushunchasi va unga oid misollar	Sirtning oshkormas ko’rinishidagi tenglamasi va unga oid misollar	Ushbu $J = \iint_{(S)}(x^2 + y^2)ds$, 1-tur sirt integralini hisoblang: $(S): x^2 + y^2 + z^2 = R^2$ sfera	Birinchi tur sirt integralini hisoblang: $\iint_{(S)}(x + y + z)ds$ bunda $(S): x \geq 0, y \geq 0, z \geq 0$ ajratilgan shartda $x + 2y + 4z = 4$ tekislikning qismi	Ushbu $J = \iint_{(S)}(6x + 4y + 3z)ds$, 1-tur sirt integralini hisoblang: $(S): x + 2y + 3z = 6$ tekislikning birinchi oktantadagi qismi
	Sirtning parametrik ko’rinishidagi tenglamasi va unga oid misollar	Sirtning yuzi va uni ikki karrali integral yordamida hisoblash	Ushbu $J = \iint_{(S)}\left(y + z + \sqrt{4 - x^2}\right)ds$, 1-tur sirt	Ushbu $J = \iint_{(S)}\left(2y - z + \sqrt{4 - x^2}\right)ds$, 1-tur sirt integralini	Ushbu $J = \iint_{(S)}(2x - 4y + 5z)ds$, 1-tur sirt integralini hisoblang: $(S): x + 2y + 3z = 6$

			integralini hisoblang: $(S): x^2 + y^2 = 4$ silindrik sirtning z=0 va z=3 tekisliklar orasidagi qismi	hisoblang: $(S): x^2 + y^2 = 4$ silindrik sirtning z=0 va z=3 tekisliklar orasidagi qismi	tekislikning birinchi oktantadagi qismi