. Quyidagi tenglamalarni integrallang :

1. $x^3dx+(x^2-1)dy=0.$
2. $\cos(2x+1)dx=3dy.$
3. $(y^3-1)dy=(y^2+y+1)dx.$
4. $\sin(2y-1)=5dx.$
5. $(1+y^2)dx+xydy=0.$
6. $(1+y^2)dx=xdy.$
7. $\sqrt{y^2+1}=xyy'.$
8. $y'-xy^2=2xy.$
9. $y'=a^{x+y},\quad (a>0,\quad a\neq 1).$
10. $xx'+t=1.$
11. $e^y(1+x^2)y'=2x(1+e^y).$
12. $(x+y)^2y'=a^2.$
13. $\frac{dy}{dx}ctgx+y=2;\qquad y(0)=-1$
14. $\frac{dy}{dx}-y=2x-3$ .
15. $(x+2y)y'=1;\quad y(0)=-1.$
16. $2x^2yy'+y^2=2.$
17. $y'=\sqrt{4x+2y-1}.$
18. $dy=\cos(y-x)dx.$
19. $\left(1+y^2\right)=\left(y-\sqrt{1+y^2}\right)\left(1+x^2\right)^{\frac{2}{3}}y'$ .
20. $\left(xy^2-y^2+x-1\right)dx+\left(x^2y-2xy+x^2+2y-2x+2\right)dy=0.$

2-topshiriq. Differensial tenglamaning umumiy integralini toping.

1. $4xdx-3ydy=3x^2ydy-2xy^2dx.$
2. $x\sqrt{1+y^2}+yy'\sqrt{1+x^2}=0.$
3. $\sqrt{4+y^2}dx-ydy=x^2ydy.$
4. $\sqrt{3+y^2}dx-ydy=x^2ydy.$
5. $6xdx-6ydy=2x^2ydy-3xy^2dx.$
6. $x\sqrt{3+y^2}dx+y\sqrt{2+x^2}dy=0.$
7. $\left(e^{2x}+5\right)dy+ye^{2x}dx=0.$
8. $y'y\sqrt{\frac{1-x^2}{1-y^2}}+1=0.$
9. $6xdx-6ydy=3x^2ydy-2xy^2dx.$
10. $x\sqrt{5+y^2}dx+y\sqrt{4+x^2}dy=0.$
11. $y\left(4+e^x\right)dy-e^xdx=0.$
12. $\sqrt{4-x^2}y'+xy^2+x=0.$
13. $2xdx-2ydy=x^2ydy-2xy^2dx.$
14. $x\sqrt{4+y^2}dx+y\sqrt{1+x^2}dy=0.$
15. $\left(e^x+8\right)dy-ye^xdx=0.$
16. $\sqrt{5+y^2}+yy'\sqrt{1-x^2}=0.$
17. $6xdx-ydy=yx^2dy-3xy^2dx.$
18. $y\ln y+xy'=0.$
19. $\left(e^x+1\right)y'=ye^x.$
20. $\sqrt{1-x^2}y'+xy^2+x=0.$