РАСЧЁТНО-ГРАФИЧЕСКОЕ ЗАДАНИЕ
по математическому анализу

Задание 8. Для заданной функции $f(x,y,z)=0$ **найти** $z'_x=\dfrac{\partial z}{\partial x}$ **и** $z'_y=\dfrac{\partial z}{\partial y}$

8.1 $z^3y^2+\sin\dfrac{y}{z}=0$

8.2 $e^{x/z}+x^3\cos y=0$

8.3 $\operatorname{arctg}\dfrac{x}{z}+x^2e^{2y}=0$

8.4 $\arcsin\dfrac{z}{y}+y^2e^{3x}=0$

8.5 $\operatorname{tg}z^2+\dfrac{y^3}{x}=0$

8.6 $\ln(x^2+yz)+x^3z^2=0$

8.7 $\log_3(xy^3+1)+\dfrac{x}{z^2}=0$

8.8 $z^3-6xz+y^3-3=0$

8.9 $z\ln(x-z)+\dfrac{y}{z}=0$

8.10 $z^2+x^3-3y+4z-2=0$

8.11 $e^{z^2}+3xyz=0$

8.12 $y\sin xz+z^2x=0$

8.13 $\lg(x^2y-3)+z^3y=0$

8.14 $z^2y^3+\cos(x-z)=0$

8.15 $y^3\sin x-e^{y/z}=0$

8.16 $ye^{3x}-\operatorname{arctg}\dfrac{y}{z}=0$

8.17 $\arccos\dfrac{z+3}{x}-x^3e^{2y}=0$

8.18 $\operatorname{ctg}z^3-\dfrac{x^2}{y}=0$

8.19 $y^3z^3+\ln(y^3-xz)=0$

8.20 $\sin(x^2+y^2)+\dfrac{y}{z^3}=0$

8.21 $x^2z-3xy+\operatorname{arctg}(x+z)=0$

8.22 $x\arcsin\dfrac{y}{x}+\dfrac{3y^2}{z}=0$

8.23 $\operatorname{tg}(x^2+z)-\dfrac{x^2}{5y}=0$

8.24 $\operatorname{arctg}xy^2-ye^z=0$

8.25 $\ln(y-3xz)+2x^2z^3=0$

8.26 $\operatorname{ctg}\dfrac{x}{y}+y^3\sin(x+y)=0$

8.27 $\operatorname{arctg}\dfrac{x}{z}+x^2e^{5y}=0$

8.28 $2^{y/z}-z\arcsin 2x=0$

8.29 $\operatorname{arctg}\dfrac{z}{x}+x^3\ln(y^2+2)=0$

8.30 $5^{z^2}+x^3\cos 2y=0$