

У каждой функции область определения равна:

$$D = \{(x, y) : x \in [-20, 20], y \in [-20, 20]\}$$

$$1. f(x, y) = e^{-|xy|/20} \cdot \sin^2(x/5)$$

$$2. f(x, y) = 2^{-x^2/100} \cdot \cos^2(xy/100)$$

$$3. f(x, y) = e^{-|y|/20} \cdot |\sin(x + y)/10|$$

$$4. f(x, y) = \frac{e^{x/20-1}}{1 + y^2/100}$$

$$5. f(x, y) = 2^{-|y/10|-2} \cdot (\sin(x/10) + \sin(y/8) + 2)$$

$$6. f(x, y) = \frac{1 + |x + y|}{1 + x^2 + y^2}$$

$$7. f(x, y) = \frac{1 + \sin \sqrt[3]{x}}{\sqrt[4]{16 + y^2}}$$

$$8. f(x, y) = \frac{e^{y/30-1}}{1 + x^2/80}$$

$$9. f(x, y) = (x^2/400 + 1) \cdot (y^2/400 + 1) \cdot |x|/100$$

$$10. f(x, y) = e^{x/20-1} - e^{y/20-1} + 3/4$$

$$11. f(x, y) = (\sin x/6 \cdot \sin y/6 + 1)/2$$

$$12. f(x, y) = x^2/800 - y^2/800 + 1/2$$

$$13. f(x, y) = \frac{2xy}{(1+x^2)(1+y^2)} + 1/2$$

$$14. f(x, y) = \frac{2x+y}{8(1+x^2/20)(1+y^2/20)} + 1/2$$

$$15. f(x, y) = e^{-\frac{x^2+y^2}{100+x+y}}$$

$$16. f(x, y) = e^{-\frac{|x|+|y|}{\sqrt{100+x+y}}}$$

$$17. f(x, y) = e^{-\frac{1+|x|+|y|}{\sqrt{100+x-y}}}$$

$$18. f(x, y) = e^{-\frac{1+|x|/|y|}{\sqrt{100+x+y}}}$$

$$19. f(x, y) = e^{-\frac{40-|x|-|y|}{\sqrt{100+x+y}}}$$

$$20. f(x, y) = e^{-\frac{40-|x|-|y|}{\sqrt{100+xy}}}$$

$$21. f(x, y) = (x^2 - 3y^2 + 2x)/500$$

$$22. f(x, y) = (2x^2 - y^2 - xy)/500$$

$$23. f(x, y) = (x^2 + 4y^2 - 2xy)/2000$$

$$24. f(x, y) = (\sin x/3 \cdot \cos y/10 + 1)/2$$

$$25. f(x, y) = \frac{e^{x/20} - e^{-y/20}}{2}$$

$$26. f(x, y) = \frac{ye^{x/20} + xe^{-y/20}}{100} + 1/2$$

$$27. f(x, y) = \frac{ye^{x^2/400} + xe^{-y^2/400}}{100} + 1/2$$

$$28. f(x, y) = \frac{xe^{x^2/400} - ye^{-y^2/400}}{100} + 1/2$$

$$29. f(x, y) = \frac{y^2e^{x^2/400} + x^2e^{-y^2/400}}{1000} + 1/2$$

$$30. f(x, y) = (\cos x/5 \cdot \cos y/7 + 1)/2$$

$$31. f(x, y) = (\cos x/10 \cdot \sin y/4 + 1)/2$$

$$32. f(x, y) = (\cos x/8 + 2 \cos y/4)/2$$

$$33. f(x, y) = (4 \cos x/4 - 8 \sin y/8)/20 + 1$$

$$34. f(x, y) = \sqrt{x^2 + y^2}/40 - xy/400$$

$$35. f(x, y) = \sqrt{x^4 + y^4}/600$$

$$36. f(x, y) = \sqrt{|x^3 + 3y^3|}/150$$

$$37. f(x, y) = 1/(|x| + 4) + 3/(y^2 + 4)$$

$$38. f(x, y) = 1/(|x| + 2) + 1/(|y| + 2)$$

$$39. f(x, y) = 3/(x^2 + 8) + 5/(y^2 + 8)$$

$$40. f(x, y) = \frac{\sqrt{1 + x^2} + \sqrt{1 + y^2}}{2\sqrt{1 + x^2}\sqrt{1 + y^2}}$$

$$41. f(x, y) = \frac{3\sqrt{1 + x^2} + 5\sqrt{1 + y^2}}{5\sqrt{1 + x^2} + 7\sqrt{1 + y^2}}$$