

SOUHRN – DEFINIČNÍ OBORY DVOU PROMĚNNÝCH

Níže uvedené příklady se objevily ve zkouškových testech v minulých letech.

Zadání

$$1) \quad f(x, y) = \ln \left(\frac{\sqrt{x^2 + y^2 - 9}}{2x + y + 3} \right)$$

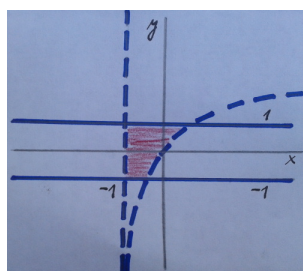
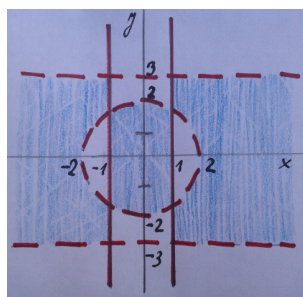
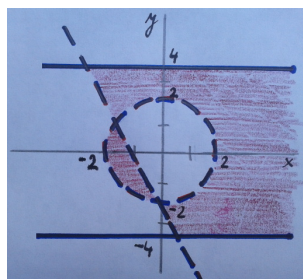
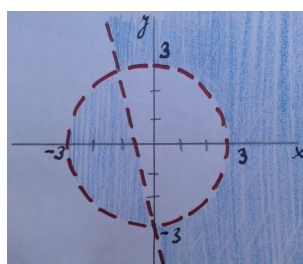
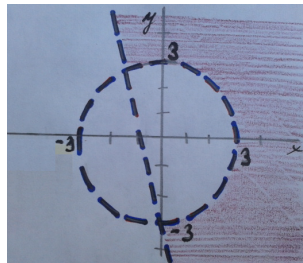
$$2) \quad f(x, y) = \ln \left(\frac{x^2 + y^2 - 9}{3} \right)$$

$$3) \quad f(x, y) = \sqrt{16 - y^2} + \ln \left(\frac{x^2 + y^2 - 4}{2x + y + 2} \right)$$

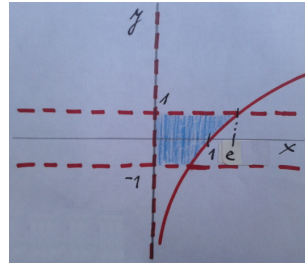
$$4) \quad f(x, y) = \sqrt{\frac{x^2 - 1}{x^2 + y^2 - 4}} + \ln(9 - y^2)$$

$$5) \quad f(x, y) = \frac{\arccos y}{\sqrt{y - \ln(x + 1)}}$$

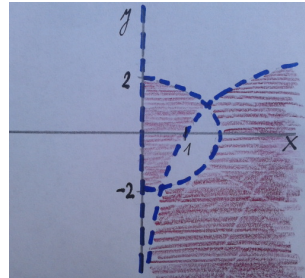
Výsledek



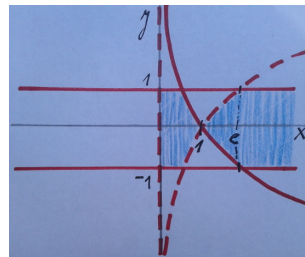
$$6) \quad f(x, y) = \sqrt{\frac{\ln x - y}{y^2 - 1}}$$



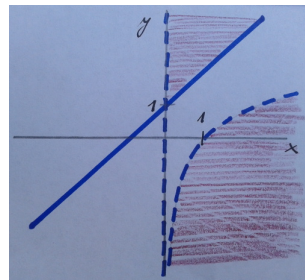
$$7) \quad f(x, y) = \ln \left(\frac{4x^2 + 9y^2 - 36}{\ln x - y} \right)$$



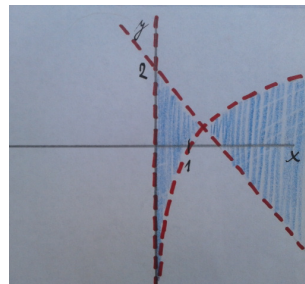
$$8) \quad f(x, y) = \sqrt{1 - y^2} + \sqrt{\frac{\ln x + y}{\ln x - y}}$$



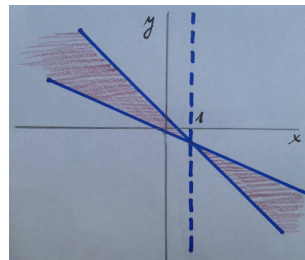
$$9) \quad f(x, y) = \sqrt{\frac{1 + x - y}{\ln x - y}}$$



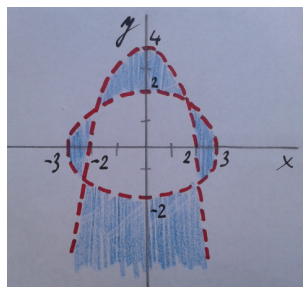
$$10) \quad f(x, y) = \ln \left(\frac{2 - x - y}{y - \log x} \right)$$



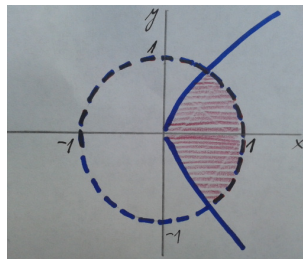
$$11) \quad f(x, y) = \arcsin \left(\frac{2x + 3y}{x - 1} \right)$$



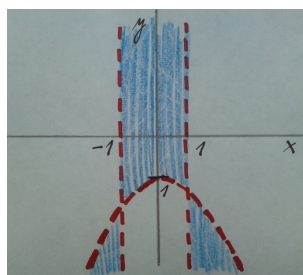
$$12) \quad f(x, y) = \log \left(\frac{36 - 4x^2 - 9y^2}{x^2 + y - 4} \right)$$



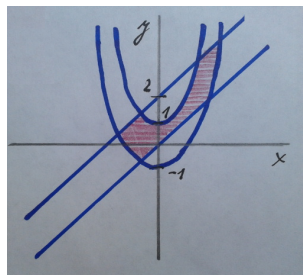
$$13) \quad f(x, y) = \frac{\sqrt{4x - y^2}}{\ln(1 - x^2 - y^2)}$$



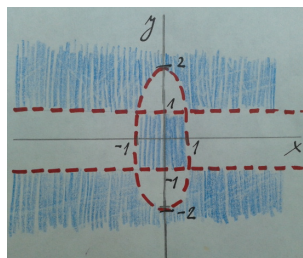
$$14) \quad f(x, y) = \ln \left(\frac{x^2 + y + 1}{1 - x^2} \right)$$



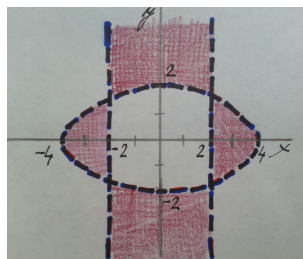
$$15) \quad f(x, y) = \arcsin(y - x^2) + \arcsin(y - x - 1)$$



$$16) \quad f(x, y) = \log \left(\frac{4x^2 + y^2 - 4}{y^2 - 1} \right)$$



$$17) \quad f(x, y) = \ln \left(\frac{4 - x^2}{x^2 + 4y^2 - 16} \right)$$



$$18) \quad f(x, y) = \ln \left(\frac{4x^2 + 9y^2 - 24x - 36y + 36}{4x^2 - y^2 - 24x + 4y + 28} \right)$$

