

Cvičení : Určete a graficky znázorněte definiční obor funkce:

1) $z = \sqrt{x^2 + y^2 - 1} + \ln(4 - x^2 - y^2),$

6) $z = \arcsin\left(\frac{x+y}{2}\right) - \frac{2xy}{\sqrt{4-x^2-y^2}},$

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

7) $z = \arccos\left(\frac{3x^2+1}{y}\right) + \ln(9-3x^2-y^2),$

3) $z = x^2y - \sqrt{\frac{2x-x^2-y^2}{x^2+y^2-4x}},$

8) $z = \frac{\ln(4\pi^2 - x^2 - y^2)}{\sqrt{\sin x}},$

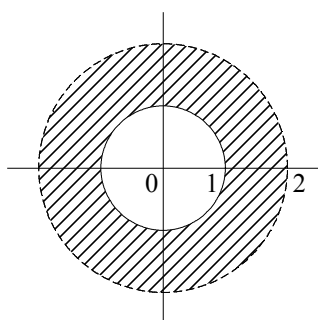
4) $z = \arccos(x^2 + y^2 - 1) + \sqrt{2x + y},$

9) $z = \sqrt{x-y^2} - \ln \sin(x+y),$

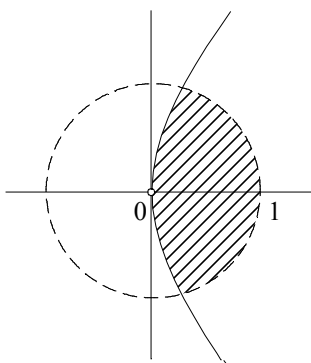
5) $z = \ln[16 - x^2 - 4y^2] + \arcsin\left(\frac{y}{x^2}\right),$

Výsledky cvičení:

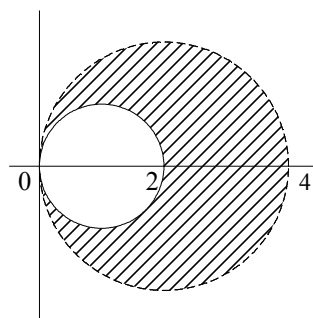
1)



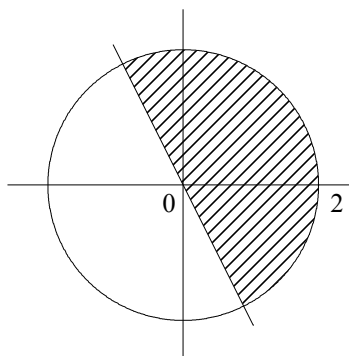
2)



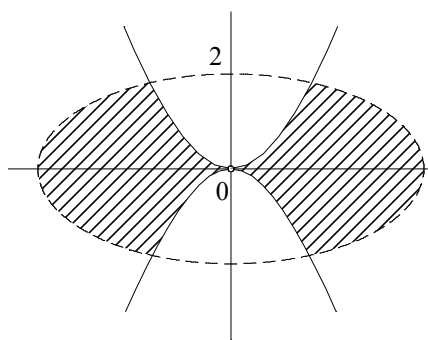
3)



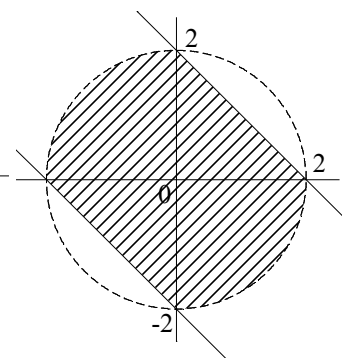
4)



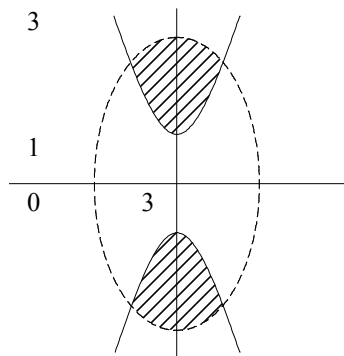
5)



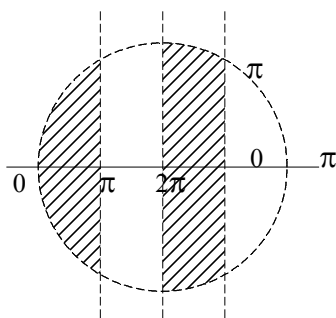
6)



7)



8)



9)

