

Určete obsah plochy ohraničené křivkami:

Find area of the region bounded by the following curves:

3)  $xy = 6, x + y - 7 = 0.$

$$[S = \frac{35}{2} - 6 \ln 6]$$

4)  $y = e^x, y = e^{-x}, x = 1.$

$$[S = e + \frac{1}{e} - 2]$$

5)  $y = 1 - (x - 1)^2, x + y = 0.$

$$[S = \frac{9}{2}]$$

6)  $y = \frac{2}{x - 2}, y + x - 5 = 0.$

$$[S = \frac{3}{2} - 2 \ln 2]$$

7)  $y = x - 2, y = -x^2.$

$$[S = \frac{9}{2}]$$

8)  $y = x^2, y^2 = x.$

$$[S = \frac{1}{3}]$$

9)  $y = 2x, y = \frac{x^3}{2}.$

$$[S = 4]$$

10)  $y = \operatorname{tg} x, y = \operatorname{cotg} x, y = 0.$

$$[S = \ln 2]$$

11)  $y = \frac{2}{x}, 2x + 3y + 8 = 0.$

$$[S = \frac{8}{3} - 2 \ln 3]$$

12)  $y = (1 - x)^2, y = 1 - x^2.$

$$[S = \frac{1}{3}]$$

13)  $y = x^2 - 4x + 3, y = x - 3.$

$$[S = \frac{1}{6}]$$

14)  $y^2 = x, y = \frac{x}{2}.$

$$[S = \frac{4}{3}]$$

15)  $y = x^2 + 1, y = 2x^2 + x + 1.$

$$[S = \frac{4}{3}]$$

