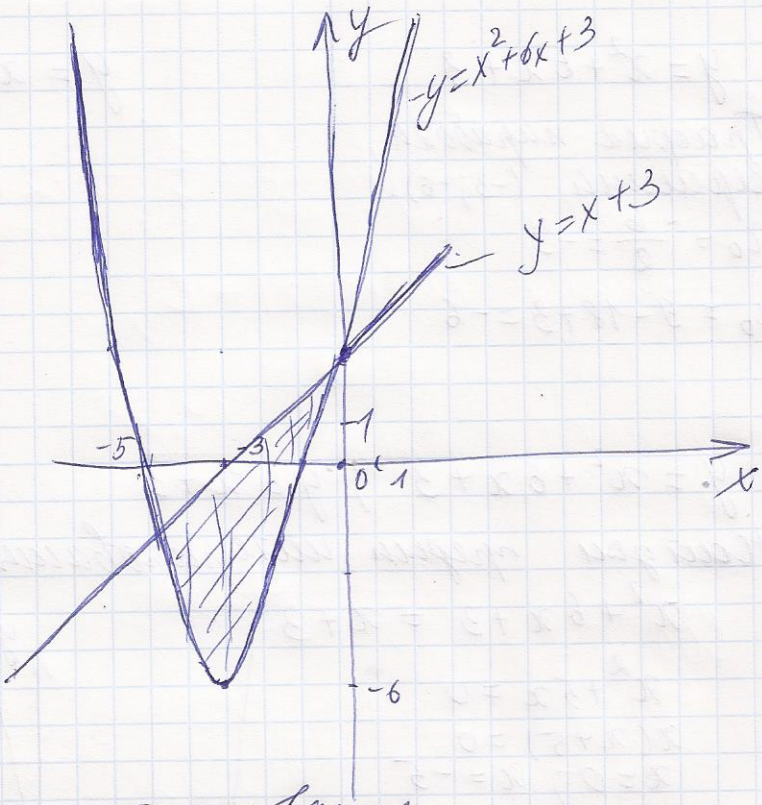


$y = x^2 + 6x + 3$

$y = x + 3$

Найдем пределы интегрирования.

$x^2 + 6x + 3 = x + 3$

$x^2 + 5x = 0$

$x(x+5) = 0$

$x = 0; \quad x = -5$

$$S_{ф} = \int_{-5}^{0} (x+3-(x^2+6x+3))\,dx \int_{-5}^{0} (-x^2-5x)\,dx = \left(-\frac{x^3}{3} - \frac{5x^2}{2}\right)\Big|_{-5}^{0} =$$

$$= 0 - \left(-\frac{-125}{3} - \frac{125}{2}\right) = -\frac{125}{3} + \frac{125}{2} = \frac{125}{6} = 20\frac{5}{6}.$$