

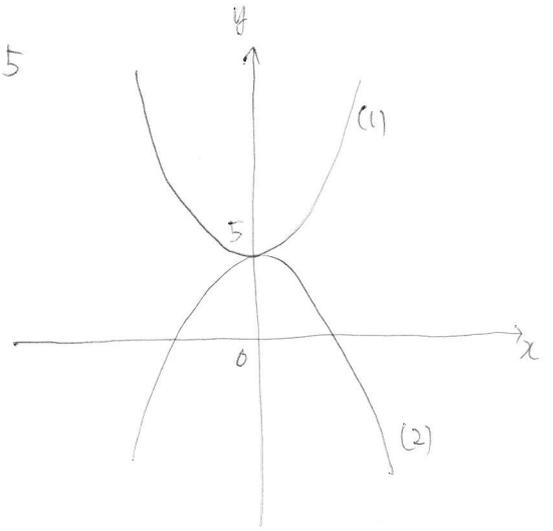
§ 1.5.1

I (1)  $\frac{dy}{dx} = x$

$\int dy = \int x dx$

$y = \frac{x^2}{2} + C$

$5 = 0 + C$  (fals?,  $y = \frac{x^2}{2} + 5$ )



(2)  $\frac{dy}{dx} = -x$

$\int dy = \int (-x) dx$

$y = -\frac{x^2}{2} + C$

$5 = 0 + C$

(fals?,  $y = -\frac{x^2}{2} + 5$ )

$y = -\frac{x^2}{2} + 5$

II (1)  $\frac{dy}{dx} = \frac{x}{y}$

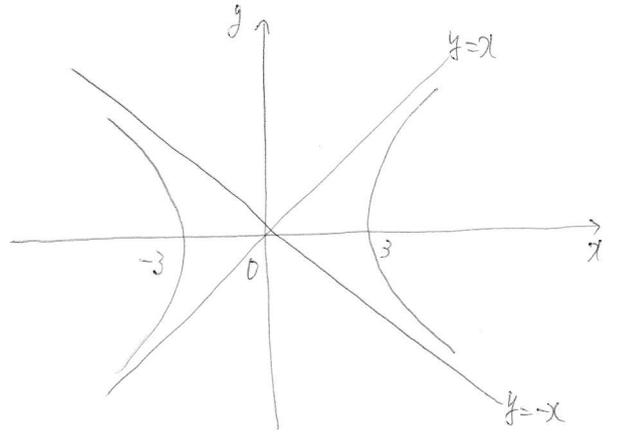
$\int y dy = \int x dx$

$\frac{y^2}{2} = \frac{x^2}{2} + C$

$\frac{16}{2} = \frac{25}{2} + C \Rightarrow C = -\frac{9}{2}$

fals?,  $\frac{y^2}{2} = \frac{x^2}{2} - \frac{9}{2}$

$x^2 - y^2 = 9$



(2)  $\frac{dy}{dx} = -\frac{x}{y}$

$\int y dy = -\int x dx$

$\frac{y^2}{2} = -\frac{x^2}{2} + C$

$\frac{16}{2} = -\frac{9}{2} + C \Rightarrow C = \frac{25}{2}$

fals?,  $\frac{y^2}{2} = -\frac{x^2}{2} + \frac{25}{2}$

$x^2 + y^2 = 5^2$

