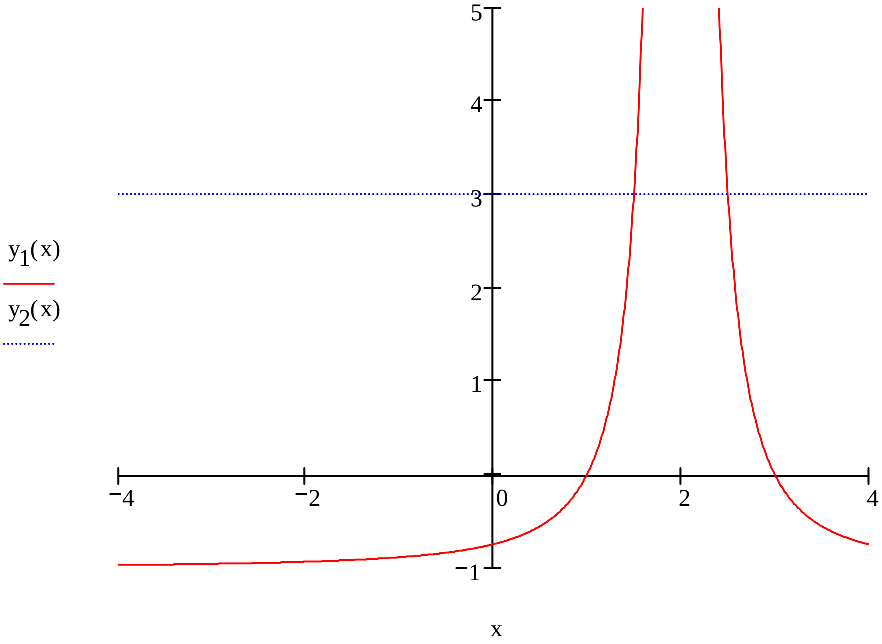
6. f₁: $y = \frac{1}{(x-2)^2} - 1$ f₂: $y = 3$

$y_1(x) := \frac{1}{(x-2)^2} - 1$ $y_2(x) := 3$



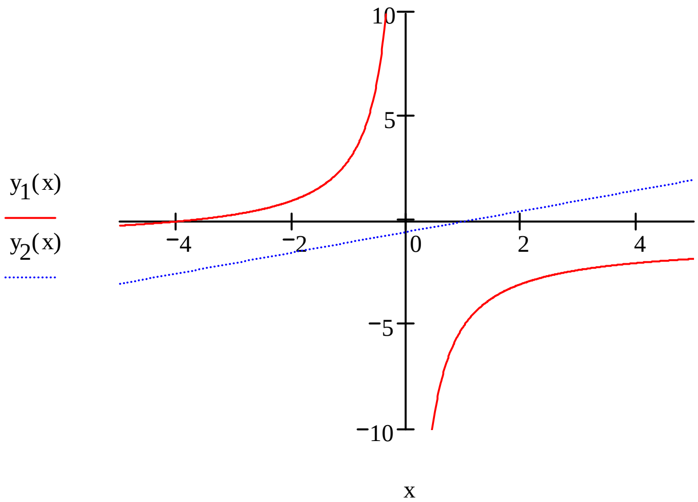
$\frac{1}{(x-2)^2} - 1 = 3$ $1 - (x-2)^2 = 3(x-2)^2$ $1 - 4(x-2)^2 = 0$

$1 - 4\left(x^2 - 4x + 4\right) = 0$ $4x^2 - 16x + 15 = 0$ $x^2 - 4 \cdot x + \frac{15}{4} = 0$

$x_1 := 2 + \sqrt{4 - \frac{15}{4}}$ $x_2 := 2 - \sqrt{4 - \frac{15}{4}}$ $x_1 = 2.5$ $x_2 = 1.5$

7. f₁: $y = -\frac{4}{x} - 1$ f₂: $y = \frac{1}{2}(x-1)$

$y_1(x) := -\frac{4}{x} - 1$ $y_2(x) := \frac{1}{2}(x-1)$



Es gibt keinen Schnittpunkt im reellen Zahlenbereich

$-4 - x = \frac{1}{2}x(x-1)$ $\frac{1}{2}x^2 - \frac{1}{2}x + x + 4 = 0$ $x^2 + x + 8 = 0$