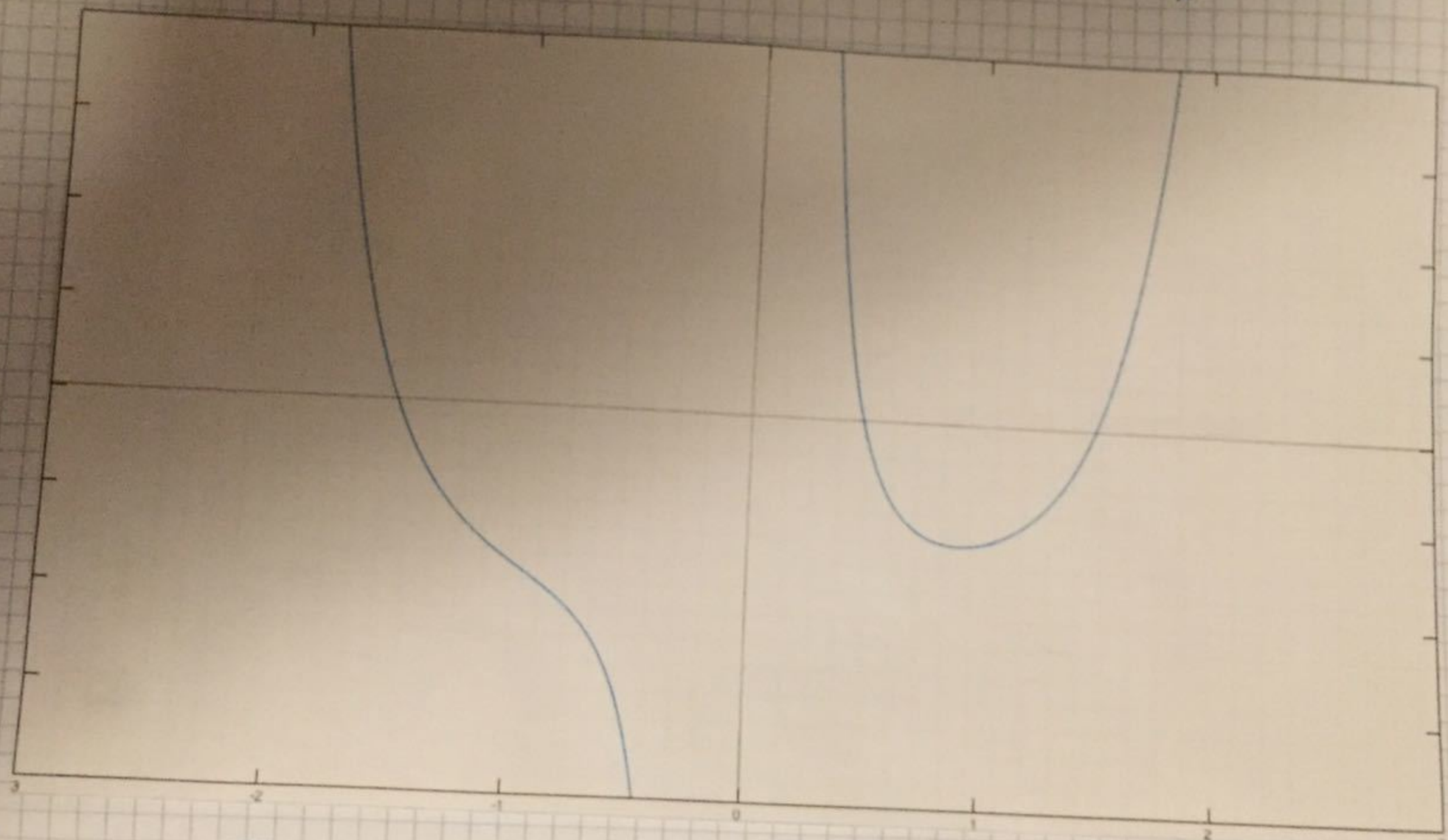
$f(x) = e^{x^2} + \frac{1}{x^3} - 10$

$f'(x) = 2x\,e^{x^2} - \frac{3}{x^4}$



Startwert $x_0 = 2$ (Newton-Verfahren)

1-te: $x_1 = 2 - \frac{f(2)}{f'(2)} = 1.7960$

2-te: $x_2 = x_1 - \frac{f(x_1)}{f'(x_1)} = 1.6251$

3-te: $x_3 = x_2 - \frac{f(x_2)}{f'(x_2)} = 1.5308$

4-te: $x_4 = x_3 - \frac{f(x_3)}{f'(x_3)} = 1.5086$