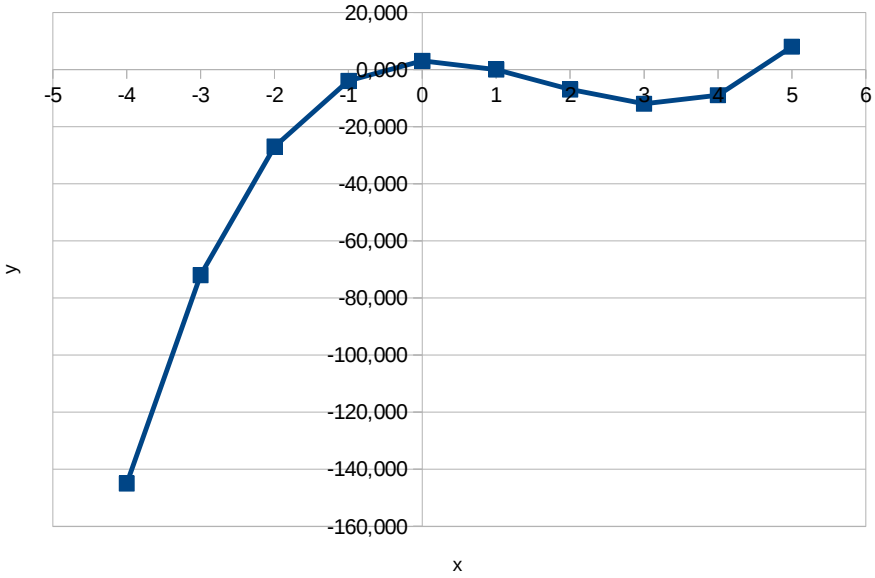
Exemplo 3 – Newton-Raphson

f(x) $x^3 - 5x^2 + x + 3$

x	f(x)
-5	-252,000
-4	-145,000
-3	-72,000
-2	-27,000
-1	-4,000
0	3,000
1	0,000
2	-7,000
3	-12,000
4	-9,000
5	8,000



e **0,0001**

f'(x) = $3x^2 - 10x + 1$

f''(x) = $6x - 10$

b) Melhor extremo (valor inicial), onde f(x)*f''(x) > 0

x	f(x)	f''(x)	f(x)*f''(x)	
-1	-4,000	-16,0000	64	**<--- Aqui**
0	3,000	-10,0000	-30	

							$\lvert x_{i+1} - x_i \rvert$	
N	**x_(i)**	**f(x)**	**f'(x)**	**x_(i+1)**	**E_ideal**	**E**		
1	-1	-4,000	14	-0,714286	0,0001	**0,28571**		
2	-0,7143	-0,630	9,673469	-0,649186	0,0001	**0,06510**		
3	-0,6492	-0,030	8,756191	-0,645761	0,0001	**0,00343**		
4	-0,6458	0,000	8,708627	-0,645751	0,0001	**0,00001**	FIM!	
5								
6								
7								

Solução: **-0,64575**