

0 5 1 0 0 9 9

$$3x^4 + 4x^3 + 2x^2 - 10x + 7 \quad / \quad 3x^2 - 5x + 9$$

$$\begin{array}{r|rrrr|rr} 3 & 3 & 4 & 2 & -10 & 7 \\ 5 & & 2 & -2 & & \\ -9 & & & 15 & -6 & \\ \hline & 1 & 3 & 5 & 25 & -10 \\ & & & & -6 & \\ & & & & +9 & -3 \end{array}$$

①

~~R: 0~~ B:  $x^2 + 3x + 5$

R:  $9x - 3$

②  $2x_1 + 2x_2 + 3x_3 = 3$

$-x_1 + 4x_2 + x_3 = 1$

$3x_1 - 5x_2 + 2x_3 = -4$

← linha 3

$2x_1 + 2x_2 + 3x_3 = 3$

$-2x_1 + 4x_2 + 3x_3 = 3$

③ Verdadeiro

④  $x^3 - 9x + 2$ ,  $[0, 1]$  erro  $< 0, 01$

$f'(x) = 3x^2 - 9$

iter	$x_0$	$f(x)$	$f'(x)$	$x_{k+1}$	erro
0	0	2	-9	0,2222	
1	0,2222	0,0112	-8,8519	0,2935	0,0013

5)  $6x^6 + x^4 + 4x^2 - 7x + 1 \quad / \quad 2x^3 + x + 3$

(0,2935)

$$\begin{array}{r|rrrr|rr} 2 & 6 & 1 & 0 & 4 & -7 & 1 \\ -3 & & 2 & 2 & -3 & 15 & -6 \\ 3 & & & 10 & -4 & 2 & \\ \hline & 3 & -1 & 5 & -2 & 10 & 5 \end{array}$$

Q:  $3x^3 - x^2 + 5x - 4$

R:  $10x - 5$



$$6) 3x_1 + 3x_2 + 4x_3 = 1$$

$$\frac{1}{3}x_1 + \frac{1}{3}x_2 = \frac{1}{3}$$

$$-8x_3 = 0$$

$$3 \quad 3 \quad 4 = 1$$

$$\frac{1}{3} \quad \frac{1}{3} = \frac{1}{3}$$

$$-8 = 0$$

$$3x_1 = 1 - 10 \quad | 3x_1 = -9 \quad | x_1 = -3$$

$$\frac{1}{3}x_2 = \frac{1}{3} \quad x_2 = 1$$

$$x_3 = 0$$

7) -

$$8) \quad 2 \quad 2 \quad 2 = 10$$

$$3 \quad 2 \quad 1 = 11$$

$$1 \quad 1 \quad 2 = 9$$

$$-1,5 \quad 0 \quad -3 \quad -2 = -4$$

$$-0,5 \quad 0 \quad 0 \quad +1 = 4$$

$$-3x_3 - 2(4) = -4 \quad | -x_3 = -4 + 8 \quad | -x_3 = 4 \quad | x_3 = -4$$

$$+1x_3 = 4 \quad | x_3 = 4$$

9) Calculadora

10) Idêntica a 5

$$11) x^2 - 7 = f(x)$$

$$2x = f'(x) \text{ (2nd)}$$

k	x <sub>0</sub>	f(x <sub>0</sub> )	x <sub>1</sub>	f(x <sub>1</sub> )	x <sub>1</sub> /x <sub>0</sub>	erro
0	2,5	2	3	0,75	2,2	0,5
1	3	-2,16	2,7	2	2,16123	



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19)  $F(x) = x^2 - 5$   
 $F'(x) = 2x$

iter	$x_0$	$F(x)$	$F'(x)$	$x_{k+1}$	erro
0	1	-4	2	3	-
1	3	4	6	2,3333	0,5555
2	2,3333	0,4443	4,6667	2,2361	0,0992
3	2,2361	0,0001	4,4722	2,2361	0,02
4	2,2361	0,0001	4,4722	2,2361	0

13)	2	2	2	12	-1,5	0	-1	-2	-7
	3	2	1	11	-0,5	0	0	2	3
	1	1	2	9					

$x_3 = 3$      $x_9 = 1$

$x_1 = 2$

kajoma