

"tu debes ser el cambio que deseas ver en el mundo".

Matemática General

$$f(x) = x^2 - x - \tan(x)$$

$$f'(x) = 2x - 1 - \frac{1}{\cos^2(x)}$$

$$x_1 = 1,5$$

$$e < 4\%$$

$$1,5 = \frac{(1,5)^2 - (1,5) + \tan(1,5)}{2(1,5) - 1,5 + \frac{1}{\cos^2(1,5)}} = 1,189611$$

$$1,189611 = \frac{(1,189611)^2 - (1,189611) + \tan(1,189611)}{2(1,189611) - 1,189611 + \frac{1}{\cos^2(1,189611)}} = 1,038361$$

$$1,038361 = \frac{(1,038361)^2 - (1,038361) + \tan(1,038361)}{2(1,038361) - 1,038361 + \frac{1}{\cos^2(1,038361)}} = 1,008811$$

$$1,008811 = \frac{(1,008811)^2 - (1,008811) + \tan(1,008811)}{2(1,008811) - (1,008811) + \frac{1}{\cos^2(1,008811)}} = 0,991355$$

$$0,991355 = \frac{(0,991355)^2 - (0,991355) + \tan(0,991355)}{2(0,991355) - (0,991355) + \frac{1}{\cos^2(0,991355)}} = 0,985465$$

$$e = \left| \frac{1,189611 - 1,5}{1,189611} \right| \cdot 100 = 26,09\%$$

$$e = \frac{0,985465 - 0,991355}{0,985465} \cdot 100 = 0,06\%$$

$$e = \left| \frac{1,038361 - 1,189611}{1,038361} \right| \cdot 100 = 12,38\%$$

$$e = \left| \frac{1,008811 - 1,038361}{1,008811} \right| \cdot 100 = 4,93\%$$

$$e = \left| \frac{0,991355 - 1,008811}{0,991355} \right| \cdot 100 = 1,76\%$$

i	x_i	x_{i+1}	e_i
1	1,5	1,189611	26,09%
2	1,189611	1,038361	12,38%
3	1,038361	1,008811	4,93%
4	1,008811	0,991355	1,76%
5	0,991355	0,985465	0,06%