

Determinar las raíces de $P(x) = 1 + 3x + 5x^2 + 6x^3$
 con $X_0 = -0.45$ con 3 cifras significativas

$$E_s = 0.5 \times 10^{2-3} = 0.05\%$$

I iteración 1

6	5	3	1	
	-2.7	-1.035	-0.88425	-0.45
6	2.3	1.965	0.11575	
	-2.7	0.18	-0.45	
6	-0.4	2.145		

$$X_1 = -0.45 - \frac{0.11575}{2.145} = -0.503962704$$

$$E_a = \left| \frac{-0.503962704 - (-0.45)}{-0.503962704} \right| \times 100$$

$$E_a = 10.70767808\%$$

Iteración 2

6	5	3	1	
	-3.023776224	-0.995943077	-1.009969946	-0.503962704
6	1.976223776	2.004056923	-0.009969945	
	-3.023776224	0.527927364	-0.503962704	
6	-1.047552448	2.531984287		

$$X_2 = -0.503962704 - \left(\frac{-0.009969945}{2.531984287} \right)$$

$$X_2 = -0.500025102$$

$$\pm_a = \left| \frac{-0.500025102 + 0.503962704}{-0.500025102} \right| \times 100 = 0.787480865\%$$

Iteración 3

6	5	3	1	
	-3.000510612	-0.999794885	-1.000152767	-0.500025102
6	1.999489388	2.000205115	-0.000152766	
	-3.000510612	0.500535739	-0.500025102	
6	-1.001021224	2.500740855		

$$X_3 = -0.500025102 - \left(\frac{-0.000152766}{2.500740855} \right)$$

$$X_3 = -0.499964013$$

$$E_a = \left| \frac{-0.499964013 - (-0.500025102)}{-0.499964013} \right| * 100 = 0.012218679\%$$

$$R// \text{ raíz} = -0.499964013 \quad \text{error} = 0.012218679\% \quad \boxed{\text{Pag 3}}$$