Cálculo Numérico: Gabarito de Método de Newton

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1. (a) $\bar{x} = 0, x_1 = 0, x_2 = 0, \varepsilon = 0$
   (b) $\bar{x} = 0, x_1 = 0, x_2 = 0, \varepsilon =$
   (c) $\bar{x} = 2.00455764, x_1 = 2.9, x_2 = 2.13965517, x_3 = 2.00455764, x_4 =, \varepsilon = 0.13509752$
   (d) $\bar{x} = -0.59259259, x_1 = -2, x_2 = -1.33333333, x_3 = -0.88888888, x_4 = -0.59259259, \varepsilon = 0.44444444$
   (e) $\bar{x} = 1.51677444, x_1 = 4.05633802, x_2 = 2.78897669, x_3 = 1.98704642, x_4 = 1.51677444, \varepsilon = 0.47027$
   (f) $\bar{x} = 0.00129550, x_1 = 0.57619047, x_2 = 0.21063156, x_3 = 0.03604670, x_4 = 0.00129550, \varepsilon = 0.03535119$
   (g) $\bar{x} = 2.92 \times 10^{-13}, x_1 = -0.55740772, x_2 = 0.06593645, x_3 = -0.00009752, x_4 = 2.92 \times 10^{-13}, \varepsilon =$
2. (a)
   (b)
   (c)
   (d)
   (e)
   (f)
   (g)
3. (a)
   (b)
   (c)
   (d)
   (e)
   (f)
   (g)

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4. (a)
   (b)
   (c)
   (d)
5. $\bar{x} = 3.14149311, x_1 = 3.14079632, x_2 = 3.14119449, x_3 = 3.14139367, x_4 = 3.14149311, \varepsilon = |x_4 - x_3| = 0.00009954$
6.