Let $f(x)$ be a function of x.

$$f(x) = x^5 + 2.5x^4 - 2x^3 - 6x^2 + \frac{x}{2} + 2$$

a. Find the actual roots of $f(x)$ and print them.

b. Given,

$$g_1(x) = \sqrt[4]{\frac{1}{2.5}(-x^5 + 2x^3 + 6x^2 - \frac{1}{2}x - 2)}$$

Apply Fixed Point Method on the $g_1(x)$ and find the appropriate root, use 30 iterations for x0 = 0.8.

c. Plot the function in $[0, 2]$ and plot the root you found from b and verify by looking at the graph.