Newton's Method Practice

1. Consider the function

$$x^5 - x^3 + 2x^2 - 1$$

Approximate the root near 1 by eight decimal places.

2. Find the 10^{th} root of 3 to four decimal places.

3. Find the value for which the following equality holds:

$$\arctan(x) = x - 1.$$

Use 2 as your initial value, and approximate to the first five decimal points.