

Written HW6 – MATH 2501 Fall 2020

Due by 3 September for timely completion credit

Use the intermediate value theorem to find a root of the equation accurate to at least two decimal points.

1. $x^4 - 2x^2 + x - 1 = 0$ (there are two real roots, one positive one negative...only need to find one — can you find the other?)
2. $xe^x = 1$ (the only real root to this equation is called the Ω -constant)
3. $x^3 = x + 1$ (the only real root to this equation is called the *plastic number* – this number is often compared to the golden ratio: <https://bit.ly/3gL7vcu>)