ECO137 Quiz 4 [January 7th, 2019] ID_____; Name_____

For $f(x) = x^4 - \frac{11}{2}x^3 - 6x^2 + \frac{7}{2}x + 3$, answer the following questions.

1. By using intermediate value theorem, prove that f(x) has at least one solution c in [0 2].

2. Use Newton's Method once to find the approximate root between [0 2].

3. For $f(x) = \frac{1}{4}x^4 - \frac{1}{3}x^3 - x^2 + 10$, find the minimum and maximum values of f(x) for x in [-2 3]. Show all of your calculations.