Essentials of Calculus

Homework 4.2

Inflection points

1. Find all inflection points for the following functions.

   a) $f(x) = x^3 - 6x^2 + 2x - 3$

   Numeric answer: f has an inflection point at $x = 2$

   b) $f(x) = x^4 + 6x^3 + 12x^2 + 3x + 1$

   Numeric answer: f has inflection points at $x = -1$ and $x = -2$

   c) $f(x) = 3x^5 - 15x^4 + 20x^2 - 3x + 3$

   Numeric answer: f has an inflection points at $x = 3$

   d) $f(x) = 3x^5 - 10x^3 + 15x - 20$

   Numeric answer: f has inflection points at $x = 0$, $x = 1$ and $x = -1$