

Assignment 1

- a) Explain the domain of the following functions

(i) $f(x) = \frac{1}{[(x-1)(x-3)]}$

(ii) $f(x) = \sqrt{x^2 - 5x + 6}$

- b) Discuss the limits of the given functions?

(i) $\lim_{t \rightarrow 2} \frac{t^3 + 3t^2 - 12t + 4}{t^3 - 4t}$

(ii) $\lim_{x \rightarrow 4^+} \frac{3-x}{x^2 - 2x - 8}$