MATH2050
Tutorial 8

November 2, 2022

1. Show that polynomial functions and rational functions are continuous whenever they are defined.
2. Show that the Thomae's function given in textbook is continuous only on irrational numbers.

$$f(x) = \begin{cases} \frac{1}{q} & \text{if } x = \frac{p}{q} \text{ for p, } q > 0 \text{ coprime} \\ 0 & \text{else} \end{cases}$$

3. Is there a function continuous only on rational numbers?
4. Function limit questions on tutorial 7.