

Source: [KBe2020math401index](#)

## 1 | Reading

Link

- #define continuity at a point

$$\lim_{x \rightarrow a} f(x) = f(a)$$

- To ensure that it is defined, connected on both sides, and doesn't have a random point
- To check for continuity, just check for  $f(a)$ ,  $\lim_{x \rightarrow a} f(x)$ , and that they are equal
- Rational functions
  - Are continuous on their domains
    - Basically anywhere they are defined
- Discontinuity types
  - Removable discontinuities
    - Hole in the graph
  - infinite is continuity
    - asymptote
  - jump discontinuity
- Continuity from the right and left
  - Same as definition of continuous, but replace the limit with right and left hand limits respectively

Link

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