Week Three

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Started to read the book "**Conceptual Mathematics**" again. Goal is to complete till page 150 (before the start of section 11).

Section 10:

- **Brouwer's theorem:**
  - ⋆ If there is '**no continuous retraction**' of the figure (line segment/disk/ball) to its boundary then every **continuous map** from this figure to itself has a '**fixed point**.
  - ⋆ We prove the above theorem by proving its **contrapositive statement**.
  - ⋆ The "**no continous retract**" in the theorem ensures that "**all points** of the figure are considered".

  Personally, I find this theorem really '*beautiful*' and '*concise*'. Although the first part of the theorem might 'seem unnecessary' at first glance, it actually plays a crucial role in the overall argument.