Review of cardinality (one more time!!)

We denote the cardinality of A by $|A|$. We say:

- $|A| = |B|$ if there exists a bijection $f : A \to B$;
- $|A| \leq |B|$ if there exists a injection $f : A \to B$;
- $|A| < |B|$ if $|A| \leq |B|$ and $|A| \neq |B|$, i.e.

$$\exists f : A \to B \text{ injective, but } \nexists g : A \to B \text{ bijective.}$$

Note!

This replicates the results we have already if A, B are finite!