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Fall Term 2007 Name:

Analysis I — Quiz 1 17.09.07

- **Q1.1.** Give X, Y and a function $f: X \longrightarrow Y$ which violates $f(\bigcap_{i=1}^{\infty} A_i) = \bigcap_{i=1}^{\infty} f(A_i)$.
- **Q1.2.** State the definition of the equivalence relation used to define \mathbb{Z} and show that addition on \mathbb{Z} as given in class is well defined.