

375 Here are a construction axiom and an induction axiom for bunch bad .

$$(\S n: nat \cdot \neg n: bad) : bad$$

$$(\S n: nat \cdot \neg n: B) : B \implies bad: B$$

(a) ✓ Are these axioms consistent?

(b) From these axioms, can we prove the fixed-point equation

$$bad = \S n: nat \cdot \neg n: bad$$

After trying the question, scroll down to the solution.

§(a) See textbook page 100

§(b) Yes, we can prove anything from them.