Here are a construction axiom and an induction axiom for bunch \( bad \).

\[
\begin{align*}
\forall n: \text{nat} \cdot \neg n: bad &\implies bad \\
\forall n: \text{nat} \cdot \neg n: B &\implies bad: B
\end{align*}
\]

(a) Are these axioms consistent?
(b) From these axioms, can we prove the fixed-point equation

\[
bad = \forall n: \text{nat} \cdot \neg n: bad
\]

After trying the question, scroll down to the solution.
§(a) See textbook page 100

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