

Challenge

Spare Time Teaching

April 12, 2015

Problem

We have played a bit with negations before, so let's continue the tradition. Prove this simple statement in Coq:

```
Require Import Setoid Classical.
```

```
Lemma  $\exists\_not\_forall$ :  $\forall A : \text{Type}, \forall P : A \rightarrow \text{Prop},$   
   $(\exists x, \sim P\ x) \leftrightarrow (\sim \forall x, P\ x).$ 
```

```
Proof.
```

```
  (* put proof here *)
```

```
Qed.
```