- $R(n, m) \equiv$ every natural number less than m divides n
- $T(n, m) \equiv$ there is a natural number les than m that divides n
- $W(n, m) \equiv n$ and m don’t have a common factor
- $S \equiv$between every two real different real numbers is another real number
- Rewrite $\neg\exists x: P(x)$ using $\forall$, rewrite $\neg\forall x, P(x)$ using $\exists$

(m|n $\equiv$ m divides n)

- $R(n, m) \equiv$ every natural number less than m divides n
  - $\forall p \in \mathbb{N}, p < m \rightarrow p|n$
- $T(n, m) \equiv$ there is a natural number les than m that divides n
  - $\exists p \in \mathbb{N}: p < m \wedge p|n$
- $W(n, m) \equiv n$ and m don't have a common factor
  - $\neg\exists p \in \mathbb{Z}: p|n \wedge p|m$
- $S \equiv$between every two real different real numbers is another real number
  - $\forall x, y \in \mathbb{R}, x \neq y \rightarrow \exists z \in \mathbb{R}: x < z < y \vee y < z < x$
- Rewrite $\neg\exists x: P(x)$ using $\forall$, rewrite $\neg\forall x, P(x)$ using $\exists$
  - $\forall x, \neg P(x)$. $\exists x: \neg P(x)$