4.4.1 Ordering from arithmetic [287]

Having already defined arithmetic, a convenient definition of ordering is as follows.

Definition 4.36. *[288]*

We will show that $\leq$ it is a total order relation, and is a well ordering. Let's first see some elementary but fundamental properties.

Lemma 4.37. *[289]*

Proposition 4.38. *[28B]*

[298]

Proposition 4.39. *[28Z]*

Proposition 4.40. *[297]*

Definition 4.41 (Subtraction)**.** *[28C]*

Exercises

E4.42 [28D]

E4.43 [28G]

E4.44 [28N]

E4.45 [28J]

E4.46 [28M]