

Solutions to HW 4.

2. (Exercises 1(b) and 1(d) of Section 2.1)

1(b) If any number is interesting, then zero is interesting.

1(d) Any uninteresting number with the property that all smaller number are interesting is certainly interesting.

1(b). $((\exists x)(N(x) \wedge I(x)) \rightarrow I(\mathbf{0}))$.

1(d). $(\forall x)((N(x) \wedge (\neg I(x) \wedge ((\forall y)((N(y) \wedge (y < x)) \rightarrow I(y)))) \rightarrow I(x))$

3. (Exercise 6 of Section 2.1)

(a) Adams can't do every job right.

(b) Adams can't do any job right.

(a) In my reading of this exercise, J is a unary predicate and a is a constant that denotes Adams. Assuming this, I would write $\neg(\forall y)(J(y) \rightarrow D(a, y))$.

(b) $(\forall y)(J(y) \rightarrow \neg D(a, y))$.