

507 Write a program to print the sequence of natural numbers, one per time unit.

After trying the question, scroll down to the solution.

§ Either we define P and Q by

$$P = \forall n: \text{nat}. \mathcal{M}_{w+n=n} \wedge \mathcal{J}_{w+n=t+n}$$

$$Q = \forall n: \text{nat}. \mathcal{M}_{w+n=n+m} \wedge \mathcal{J}_{w+n=t+n}$$

and refine them by

$$P \Leftarrow m:=0. Q$$

$$Q \Leftarrow c! m. m:=m+1. t:=t+1. Q$$

or we define P and Q by equations similar to the above implications.