

```
#|  
<expr> ::= (num <num>)  
          | (add <expr> <expr>)  
          | (sub <expr> <expr>)  
          | (if0 <expr> <expr> <expr>)  
          | (with <id> <expr> <expr>)  
          | (id <id>)  
          | (app <id> <expr>)
```

```
|#  
;; Inductive type for representing arith-  
;; metical expressions with conditionals,  
;; identifiers and function calls  
(deftype Expr  
  (num n)  
  (add l r)  
  (sub l r)  
  (if0 c t f)  
  (with id named-expr body)  
  (id x)  
  (app f-name f-arg))
```