

```
(define (eval expr env)
  (match expr
    [(num n) (numV n)]
    [(fun id body) (closureV id body env)]
    [(id x) (env-lookup x env)]
    [(add l r) (num+ (eval l env) (eval r env))]
    [(sub l r) (num- (eval l env) (eval r env))]
    [(if0 c t f) (if (num-zero? (eval c env))
                      (eval t env)
                      (eval f env))]
    [(app f e) (def (closureV the-arg the-body the-clos-env) (eval f env))
                 (def the-ext-env (extend-env the-arg (exprV e env) the-clos-env))
                 (eval the-body the-ext-env))])
```