

CSE 130 (Wi 25) Handout

Feb 27, 2025

Question 1

Fill in the eval case for the ELet case below

```
data Expr = ENum Int | EBin Binop Expr Expr | EVar Id | ELet Id Expr Expr
```

```
eval :: Env -> Expr -> Value
```

```
eval env (ENum n)      = n
```

```
eval env (EVar x)     = lookup env x
```

```
eval env (EBin op e1 e2) = evalOp op (eval env e1) (eval env e2)
```

```
eval env (ELet x e1 e2) = _____
```

Question 2

What *should* the following expression evaluate to?

```
q2 =
```

```
  let c = 1
  in
    let inc = \x -> x + c
    in
      let c = 100
      in
        inc 10
```

```
-- >>> q2
```

```
-- _____
```

Question 3

What *should* the following expression evaluate to?

```
q3 =
```

```
  let add = \x -> (\y -> x + y)
  in
    let add10 = add 10
    in
      let add20 = add 20
      in
        (add10 100) + (add20 1000)
```

```
-- >>> q3
```

```
-- _____
```