

```
type expr =
| ELet of string * expr * expr
| EId of string
| ENum of int

let rec compile_expr e env si = ...
let rec well_formed e env = ...
```

```
interface Expr {
```

```
}
class ELet implements Expr {
    String name; Expr val, body;
    ELet(String name, Expr val, Expr body) {
        this.name = name; this.val = val; this.body = body; }
}
```

```
}
class EId implements Expr {
    String name;
    EId(String name) { this.name = name; }
}
```

```
}
class ENum implements Expr {
    int num;
    ENum(int num) { this.num = num; }
}
```

```
}
```

```

import java.util.ArrayList;
interface ExprV {
    <T> T visit(ExprVisitor<T> v);
}
interface ExprVisitor<T> {
    T visit(ELet e);
    T visit(EId e);
    T visit(ENum e);
    T visit(EPlus e);
}
class ELet implements Expr {
    String name; Expr val, body;
    ELet(String name, Expr val, Expr body) {
        this.name = name; this.val = val; this.body = body;
    }
    public <T> T visit(ExprVisitor<T> v) { return v.visit(this); }
}
class EId implements Expr {
    String name;
    EId(String name) { this.name = name; }
    public <T> T visit(ExprVisitor<T> v) { return v.visit(this); }
}
class ENum implements Expr {
    int num;
    ENum(int num) { this.num = num; }
    public <T> T visit(ExprVisitor<T> v) { return v.visit(this); }
}
class EPlus implements Expr {
    Expr left, right;
    EPlus(Expr left, Expr right) { this.left = left; this.right = right; }
    public <T> T visit(ExprVisitor<T> v) { return v.visit(this); }
}

class CompileVisitor implements ExprVisitor<ArrayList<String>> {

```

```

}
class UnboundIdsVisitor implements ExprVisitor<ArrayList<String>> {

```

```

}

```

