

### A. Haskell Program

```

1  f :: Char
2  f = '3'
3  g :: Int
4  g = f
  
```

### B. Generated Prolog Predicates

```

1  f(Vf, _) ← Vf = char,
2              Vf = char.
3  g(Vg, _) ← Vg = int,
4              f(Vg, _).
5  type_check ← f(_, _), g(_, _).
  
```

### C. MUSes, MCSes and MSSes

```

MUS1: { Vf = char Vg = int f(Vg, _) }
MUS2: { Vf = char Vg = int f(Vg, _) }

MCS1: { Vf = char Vf = char }
MCS2: { Vg = int }
MCS3: { f(Vg, _) }

MSS1: { Vg = int f(Vg, _) }
MSS2: { Vf = char Vf = char f(Vg, _) }
MSS3: { Vf = char Vf = char Vg = int }
  
```