

```
(define-sort Feature () Bool)
(declare-const G Feature)
(declare-const A Feature)
(declare-const M Feature)
(declare-const L Feature)
(declare-const C Feature)
(declare-const R Feature)
(declare-const B Feature)
(declare-const N Feature)
(declare-const W Feature)
(declare-const V Feature)
(declare-const Y Feature)
(declare-const P Feature)
(declare-const S Feature)
```

(a)

```
(assert G)
(assert (and
  (= A G)
  (= M A)
  (= L A)
  (= C G)
  (= R G)
  (= (or B N W) R)
  (not (and B N))
  (not (and B W))
  (not (and N W))
  (= V G)
  (= Y V)
  (= P V)
  (=> S V)
))
```

(b)

```
(push)
(assert G)
(check-sat)
(pop)
(push)
(assert B)
(check-sat)
(pop)
(push)
(assert S)
(check-sat)
(pop)
.
.
.
```

(c)

```
(push)
(assert S)
(assert (and
  (not (and W S))
  (not (and (not W) S))
))
(check-sat)
(pop)
.
.
.
```

(d)