

```
1 contract MechanismHarness {
2   // k-player bounded model
3   uint BID[k]; // symbolic values
4   uint VALUE[k]; // symbolic values
5   for (uint i=0; i<k; i++) {
6     // Example: msg.sender = i
7     require(@individual.id == toStr(i));
8     // Example: msg.value = BID[i]
9     require(@individual.bid == BID[i]);
10    // Example: bid() function inlined
11    @outcome;
12    // Example: ALLOCATE = highestBidder
13    ALLOCATE = @allocate;
14    // Example: PRICE = highestBid
15    PRICE = @price;
16    // Check loop invariant
17    // PRICE = max(BID[0..i])  $\wedge$  ALLOCATE = arg max(BID[0..i])
18    assert(<invariant>);
19  }
20  // Check post condition
21  assert(<property>);
22 }
```