

```
1 import java.awt.event.ActionListener;
2
3 /**
4  * View interface.
5  *
6  * @author Bruce W. Weide
7  */
8
9 public interface NNCalcView extends ActionListener {
10
11     /**
12      * Register argument as observer/listener of this; this must be done first,
13      * before any other methods of this class are called.
14      *
15      * @param controller
16      *       controller to register
17      */
18     void registerObserver(NNCalcController controller);
19
20     /**
21      * Updates top operand display based on NaturalNumber provided as argument.
22      *
23      * @param n
24      *       new value of top operand display
25      */
26     void updateTopDisplay(NaturalNumber n);
27
28     /**
29      * Updates bottom operand display based on NaturalNumber provided as
30      * argument.
31      *
32      * @param n
33      *       new value of bottom operand display
34      */
35     void updateBottomDisplay(NaturalNumber n);
36
37     /**
38      * Updates display of whether subtract operation is allowed.
39      *
40      * @param allowed
41      *       true iff subtract is allowed
42      */
43     void updateSubtractAllowed(boolean allowed);
44
45     /**
46      * Updates display of whether divide operation is allowed.
47      *
48      * @param allowed
49      *       true iff divide is allowed
50      */
51     void updateDivideAllowed(boolean allowed);
52
53     /**
54      * Updates display of whether power operation is allowed.
55      *
56      * @param allowed
57      *       true iff power is allowed
58      */
59 }
```

```
60     void updatePowerAllowed(boolean allowed);
61
62     /**
63      * Updates display of whether root operation is allowed.
64      *
65      * @param allowed
66      *         true iff root is allowed
67      */
68     void updateRootAllowed(boolean allowed);
69
70 }
71
```