

```
1
2 public class Television {
3
4
5     private int channel = 1;
6     private int volume = 1;
7     private boolean on = false;
8
9     public Television() {
10
11     }
12
13     public Television(int channel, int volume, boolean on) {
14         setChannel(channel);
15         setVolume(volume);
16         this.on = on;
17     }
18
19     public Television(Television tv) {
20         channel = tv.channel;
21         volume = tv.volume;
22         on = tv.on;
23     }
24
25     public void turnOn() {
26         on = true;
27     }
28
29     public void turnOff() {
30         on = false;
31     }
32
33     public void setChannel(int newChannel) {
34         newChannel = newChannel ≥ 1 ? (newChannel ≤ 120 ? newChannel
35 : 120) : 1;
36     }
37
38     public void setVolume(int newVolumeLevel) {
39         volume = newVolumeLevel ≥ 1 ? (newVolumeLevel ≤ 7 ?
40 newVolumeLevel : 7) : 1;
41     }
42
43     public void channelUp() {
44         setChannel(channel + 1);
45     }
46 }
```

```
43     }
44
45     public void channelDown() {
46         setChannel (channel - 1);
47     }
48
49     public void volumeUp() {
50         setVolume(volume + 1);
51     }
52
53     public void volumeDown() {
54         setVolume (volume - 1);
55     }
56
57     @Override
58     public String toString() {
59         return String.format("Telivision: [On: %b, Channel: %d,
60         Volume: %d]", on, channel, volume);
61     }
62 }
```