```
1  public class RegularMRSWRegister implements Register<Byte> {
2    private static int RANGE = Byte.MAX_VALUE - Byte.MIN_VALUE + 1;
3    boolean[] r_bit = new boolean[RANGE]; // regular Boolean MRSW
4    public RegularMRSWRegister(int capacity) {
5      for (int i = 1; i < r_bit.length; i++)
6        r_bit[i] = false;
7      r_bit[0] = true;
8    }
9    public void write(Byte x) {
10     r_bit[x] = true;
11     for (int i = x - 1; i >= 0; i--)
12       r_bit[i] = false;
13   }
14   public Byte read() {
15     for (int i = 0; i < RANGE; i++)
16       if (r_bit[i]) {
17         return i;
18       }
19     return -1; // impossible
20   }
21 }
```

FIGURE 4.8 The RegularMRSWRegister class: a regular *M*-valued MRSW register.