```java
public class ReviewProblems {
    public static void main(String[] args) {
        int total=0, MAX=0, length=0, MIN_LENGTH=0, count=0, sum=0;

        // 3.2 What's wrong?
        if (total == MAX)
            if (total < sum)
                System.out.println ("total == MAX and is < sum.");
        else
            System.out.println ("total is not equal to MAX");




        // 3.3  What's wrong?  Will it compile?
        if (length = MIN_LENGTH)
            System.out.println("The length is minimal.");




        // 3.4 What output is produced?
        int num = 87, max = 25;
        if (num >= max*2)
            System.out.println("apple");
            System.out.println("orange");
        System.out.println("pear");




        // 3.5 What is produced?
        int limit = 100, num1 = 15, num2 = 40;
        if (limit <= limit) {
            if (num1 == num2)
                System.out.println("lemon");
            System.out.println("lime");
        }
        System.out.println("grape");




        // 3.7 What is produced?
        num = 1; max = 20;
        while (num < max) {
            if (num%2 == 0)
                System.out.println(num);
            num++;
        }




        // 3.8 What output is produced?
        for (num=0; num<=200; num += 2)
            System.out.println(num);




        // 3.9 What output is produced?
        for (int val = 200; val >= 0; val -= 1)
            if (val % 4 != 0)
                System.out.println(val);




        // 3.10 Transform while into for
```

```
72          num = 1;
73          while (num < 20) {
74              num++;
75              System.out.println(num);
76          }
77
78
79
80
81          // 3.11 What is wrong?  List three ways it could be corrected
82          count = 50;
83          while (count >= 0) {
84              System.out.println(count);
85              count = count + 1;
86          }
87
88
89
90
91
92      }
93  }
94
95
96
```