1. 计算下列代码片段的 *Halstead* 复杂度的11项内容：

```
if (month < 3) {
   month += 12;
    –year;
}
return dayray((int)(day + (month + 1) * 26/10 + year +
          year/4 + 6 * (year/100) + year/400)% 7);
```

解答：

| Operator | Number of Occurrences | Operand | Number of Occurrences |
|---|---|---|---|
| if | 1 | month | 3 |
| < | 1 | year | 5 |
| += | 1 | day | 1 |
| - | 1 | 3 | 1 |
| return | 1 | 12 | 1 |
| + | 6 | 1 | 1 |
| * | 2 | 26 | 1 |
| / | 4 | 10 | 1 |
| % | 1 | 4 | 1 |
| dayray | 1 | 6 | 1 |
| int | 1 | 100 | 1 |
| | | 400 | 1 |
| | | 7 | 1 |
| n1 = 11 | N1 = 20 | n2 = 13 | N2 = 19 |

1.程序词汇表长度 Program vocabulary：n = n1 + n2 = 24

2.程序长度或简单长度 Program length：N = N1 + N2 = 39

3.程序的预测长度 Calculated program length：N^= $11\log_2 11 + 13\log_2 13$

4.程序体积或容量 Volume：V = $\mathrm{N}\log_2 n$ = $39\log_2 24$

5.程序级别 Level：L^ = (2 / n1) * (n2 / N2) = 2/11 * 13/19 = $\frac{26}{209}$

6.程序难度 Difficulty：D = 1 / (L^) = $\frac{209}{26}$

7.编程工作量 Effort：E = V * D = $(\frac{8151}{26})\log_2 24$

8.语言级别：L' = L^ * L^ * V = $(\frac{26}{209})^2 * 39\log_2 24$

9.编程时间 (hours)：T^ = E / (S * f) = $\frac{1}{60*60*18} * (\frac{8151}{26})\log_2 24$

10.平均语句大小：N/语句数 = $\frac{39}{4}$

11.程序中的错误数预测值：B = V/3000 = $(\frac{39}{3000})\log_2 24$