举例：
求 sinsinsin…sinx 的值（有 n 个 sin；x 和 n 的值在执行时输入）。
（1）sin…sinsinsinx

```
              ————
              s
           ———————
           t
        ——————————
        u
     …
```

不断引入新变量，导致无法编写程序。
（2）sin…sinsinsinx

```
              —
              s
           ————
           s
        ———————
        s
     ——————————
     s
  …
——————————————————
s
```

用迭代方式编写程序。

```
s = x;
for (i = 1; i <= n; i++)
{
    s = sin(s);
}
```


上机题：

1. 求 $\sqrt{100 + \sqrt{99 + \sqrt{98 + \sqrt{... + \sqrt{1}}}}}$ 的近似值。

2. 根据 $\dfrac{\pi}{2} = \dfrac{2}{\sqrt{2}} \times \dfrac{2}{\sqrt{2+\sqrt{2}}} \times \dfrac{2}{\sqrt{2+\sqrt{2+\sqrt{2}}}} \times ...$ 求 π 的近似值，要求取前 100 个分式。

3. 根据 $\dfrac{\pi}{2} = 1 + \dfrac{1}{3} + \dfrac{1}{3} \times \dfrac{2}{5} + \dfrac{1}{3} \times \dfrac{2}{5} \times \dfrac{3}{7} + \dfrac{1}{3} \times \dfrac{2}{5} \times \dfrac{3}{7} \times \dfrac{4}{9} + \cdots$ 求 π 的近似值，要求取前 100 项。

4. 有两个两位正整数 i 和 j，已知 i 减去 j 等于 56，i^2 的末两位数字等于 j^2 的末两位数字。求 i 和 j 的值。

5. Counting Numbers

Starting from a positive integer n ($1 \leqslant n \leqslant 2001$). On the left of the integer n, you can place another integer m to form a new integer mn, where m must be less than or equal to half of the integer n. If there is an integer k less than or equal to half of m, you can place k on the left of mn to form a new integer kmn, …, and so on. For example, you can place 12 on the left of 30 to form an integer 1230, and you can place 6 to the left of 1230 to form an integer 61230, …, and so on.

For example, start from $n = 8$, you can have the following 10 integers (including the integer you start with): 8, 18, 28, 38, 48, 128, 138, 148, 248, 1248.

Given an integer n, find the number of integers you can get using the procedure described above.