# The Epidemic



An epidemic has out broken in the world and many people are getting infected day by day. Scientists who are studying about this epidemic have already found that this is caused by a virus (not a computer virus) and they have already found the pattern of the growth of this virus.

For simplicity we will brief the growth pattern as follows.

- 1. First a virus cell enters human body in day 1
- 2. This cell grows for *five* days
- 3. After five days (from 6th day onwards) this cell is a grown cell
- 4. This *grown cell* make *three* new virus cells *everyday* thereafter
- 5. These new cells grow in a similar way
- 6. After **10** days (from 11th day onwards) the new cells born in day **6** are **grown** and they also start making more new cells.
- 7. Assume *no cells die* within the period we consider

The pattern of the growth in first 12 days is shown in the following table

 Day
 1234567 8 9 101112

 Grown Cells
 0000011 1 1 1 4 7

 New Born Cells for This Day
 0000033 3 3 1221

 Total Child Cells
 1111136 9 12152442

 Total Cells
 11111471013162849

Predicting the number of virus cells in a patient at a given time is crucial when treating the disease. Since the pattern increases very rapidly after 10 days, it is difficult to predict the numbers. Therefore, a computer program is needed to predict the virus cell count in any day.

You are given the number of days(D) passed after the patient is infected. You are supposed to predict the number of grown virus cells and child virus cells.

### Input Format

A single integer **D**, the number of days.

### **Constraints**

• 1 < D < 90

### **Limits**

• Time Limit: 1s

Memory Limit: 256MB

### **Output Format**

A single integer, the total number of virus cells.

# Sample Input 0 Sample Output 0 Explanation 0 Explained above Sample Input 1 12 Sample Output 1

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Explanation 1

Explained above