```c
#include <stdio.h>
#include <stdlib.h>
int main()
{
  int i = 0, j = 0, k = 0, q = 0;
  int prior = 1000 * i + 100 * j + 10 * k + q;
  for (i = 1; i < 10; ++i)
    for (j = 1; j < 10; ++j)
      for (k = 1; k < 10; ++k)
        for (q = 1; q < 10; ++q)
        {
          int prior = 1000 * i + 100 * j + 10 * k + q;
          int parent = 1000 * q + 100 * k + 10 * j + i;
          if (4 * prior == parent)
          {
            printf("%d", prior);
            return 0;
          }
        }
}
```

```c
#include <stdio.h>
int main()
{
  int cnt = 0;
  int sum = 0;
  int start = 1;
  while (start < 100)
  {
    sum += start;
    start++;
    if (sum % 9 == 0)
    {
      cnt++;
    }
  }
  printf("%d", cnt);
}
```

```c
#define N 30000
#include <stdio.h>
int main()
{
  int i, j;
  int sum = 0;
  long int s[N];
  for (i = 2; i < N; i++)
```

```
  {
    for (j = 1, s[i] = 0; j < i; j++)
    {
      if (i % j == 0)
      {
        s[i] += j;
      }
    }
  }
  for (i = 2; i < N; i++)
  {
    j = s[i];
    if (j > N)
      continue;
    if (i == s[j] && j > i)
    {
      printf("(%d,%d)\n", i, j);
      sum++;
    }
  }
  printf("%d", sum);
}
```

```
#include <stdio.h>
void printResult(int ret[3][3], int nonsense)
{
  printf("A Teacher:%d Student:%d Worker:%d\n", ret[0][0], ret[0][1], ret[0][2]);
  printf("B Teacher:%d Student:%d Worker:%d\n", ret[1][0], ret[1][1], ret[1][2]);
  printf("C Teacher:%d Student:%d Worker:%d\n", ret[2][0], ret[2][1], ret[2][2]);
  printf("废票: %d\n", nonsense);
}
int main()
{
  int ret[3][3] = {0};
  char ch;
  int In = 0;
  int nonsense = 0;
  while (1)
  {
    scanf("%c", &ch);
    scanf("%d", &In);
    if (In > 3 || In <= 0)
    {
      nonsense++;
    }
    else if (In <= 3)
    {
      switch (ch)
      {
      case 'A':
        ret[0][In - 1]++;
```

```
        break;
      case 'B':
        ret[1][In - 1]++;
        break;
      case 'C':
        ret[2][In - 1]++;
        break;
      default:
        nonsense++;
        break;
      }
    }
    printResult(ret, nonsense);
    getchar();
  }
}
```

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
int main(int argc, char *argv[])
{
  int winC = 0;
  int loseC = 0;
  int aid = 0;
  srand((unsigned int)time(0));
  int first = rand() % 6 + 1;
  int second = rand() % 6 + 1;
  // printf("(%d,%d)", first, second);
  aid = first + second;
  if (aid == 7 || aid == 11)
  {
    printf("you win it\n");
    return 0;
  }
  else
  {
    if (aid == 2 || aid == 3 || aid == 12)
    {
      printf("you lose it\n");
      return 0;
    }
    else
    {
      while (1)
      {
        first = rand() % 6 + 1;
        second = rand() % 6 + 1;
        if (aid == first + second)
        {
          printf("you win it\n");
```

```
            break;
          }
          else if (first + second == 7)
          {
            printf("you lose it\n");
            break;
          }
        }
      }
    }
    return 0;
}
```

```
#define MAX_NAME 4
#include <math.h>
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <windows.h>
int main()
{
  srand((unsigned int)(time(0)));
  for (int i = 0; i < 10; ++i)
  {
    double a = (double)rand();
    for (int i = 1; i <= MAX_NAME; ++i)
    {
      printf("%.f", a / MAX_NAME);
      if (i != MAX_NAME)
      {
        printf("*");
      }
      if (i == MAX_NAME)
      {
        printf("=");
        printf("%.f", pow(a / MAX_NAME, MAX_NAME));
      }
    }
    printf("\n");
    Sleep(100);
  }
}
```

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
  int niu;
  int hou;
```

```
  int ji;
  int tu;
  int yang;
  int gou;
  int zhu;
  for (niu = 0; niu < 10; ++niu)
    for (hou = 0; niu < 10; ++niu)
      for (ji = 0; ji < 10; ++ji)
        for (tu = 1; tu < 10; ++tu)
          for (yang = 0; yang < 10; ++yang)
            for (gou = 0; gou < 10; ++gou)
              for (zhu = 1; zhu < 10; ++zhu)
              {
                if ((10 * zhu + hou + zhu == zhu * 11) && (10 * zhu + hou - ji ==
niu) && (ji / tu == tu) && (niu + yang == gou))
                {
                  printf("已找到\n");

printf("niu=%d\nhou=%d\nji=%d\ntu=%d\nyang=%d\ngou=%d\nzhu=%d\n", niu, hou, ji,
tu, yang, gou, zhu);
                  return 0;
                }
              }
  printf("没找到");
  return -1;
}
```

```
#include <iostream>
#include <stdio.h>
#include <stdlib.h>
//其实就是问7个之间插三个板有多少可能，一共6个空。即C63*A77
long int fact(int n)
{
  if (n == 1)
    return n;
  else if (n == 2)
    return n;
  else
    return n * fact(n - 1);
}
int main()
{
  int m = 6;
  int n = 3;
  int h = 7;
  std::cout << (fact(m) / (fact(m - n) * fact(n))) * fact(h);
}
```