

## Programming Contest Problem

Consider a fast-food restaurant which sells chicken nuggets in the following quantities:

Nuggets	Price
7	\$2.00
12	\$3.00
23	\$5.00

Write a program which reads in a number of nuggets, and then prints out either: (a) the least-expensive way to provide that many nuggets, or (b) that that exact number of nuggets cannot be provided. For example, an order for 161 nuggets could be fulfilled as 23 boxes of 7, for a total of \$46.00, or as 7 boxes of 23, for a total of \$35.00. In this case, your program should report 7 boxes of 23. An order for 18 nuggets could not be filled in any way, and your program should report that the order cannot be filled. Here is a sample run:

```
Please input the number of nuggets (0 if you are done): 3245
This number can be supplied as follows:
  0 boxes of size 7, 4 boxes of size 12, 139 boxes of size 23,
  for a total cost of $707.
```

```
Please input the number of nuggets (0 if you are done): 22
Sorry, this order cannot be filled.
```

```
Please input the number of nuggets (0 if you are done): 114
This number can be supplied as follows:
  3 boxes of size 7, 2 boxes of size 12, 3 boxes of size 23,
  for a total cost of $27.
```

```
Please input the number of nuggets (0 if you are done): 0
Thank you for using the Nugget Order System!
```

Show the output of your program on the following quantities:

**359**  
**360**  
**119**  
**1234**  
**4321**  
**22**  
**222**  
**2222**  
**654**  
**0**