

Problem 6—Stamps

Mail doesn't arrive with any regularity on the island—only stray bottles with notes—so Ginger Grant hasn't been receiving the fan mail to which she has become accustomed. Ginger imagines the reply mail she used to send. She kept on hand at all times a supply of 6¢, 9¢, and 20¢ stamps, which she would use to post mail. By using different combinations of stamps, she could make virtually any amount of postage she wanted. 44¢, for example, can be made from 4 6¢ stamps and 1 20¢ stamp. However, after much thought, Ginger realized that there is no way at all to make exactly 43¢. And while, to be quite frank, Ginger simply isn't bright enough to realize this, 43¢ is the largest possible value that cannot be made with 6¢, 9¢, and 20¢ stamps. You are to generalize this. Given the monetary values of three stamps, you are to determine the highest value that cannot be exactly covered. Alternatively, you may determine that all values can be covered or that there are an infinite number of values that cannot be.

INPUT SPECIFICATION. Each input case will consist of three unsigned decimal integers inclusively between 1 and 100 representing representing the values of the stamps. The integers may be preceded and/or followed by any number of spaces and will be separated by at least one space. Each input case will be followed by at least one<EOLN>. Following the last test case will be a single line consisting of 0 followed by <EOLN>. This case signals the end of input and is not to be processed.

OUTPUT SPECIFICATION. The output solutions should appear in the same order as their corresponding input cases. Each solution should be in one of the three forms, whichever is appropriate: “The largest postage that cannot be covered is x.” (with x being the appropriate numeric value). “All postage can be covered.” “There are an infinite number of postages that cannot be covered.” Format counts! Be sure your output lines are spelled exactly correctly! Each line is terminated by a single <EOLN>.

SAMPLE INPUT.

```
6·9·20<EOLN>
9·18·15<EOLN>
0<EOLN>
<EOF>
```

SAMPLE OUTPUT.

```
The·largest·postage·that·cannot·be·covered·is·43·.<EOLN>
There·are·an·infinite·number·of·postages·that·cannot·be·covered·.<EOLN>
<EOF>
```