The Virtual Learning Environment for Computer Programming

Stamps II X44729_en

We want to send a postcard by mail. We need to stamp worth n cents ($n \ge 20$). Stamps have values 7 and 4 cents. As space is limited we want to know the minimum number of stamps we need to put on the postcard, without losing a cent.

Using the definition

```
struct Stamps {
    int stamp7;
    int stamp4;
};
```

implement a recursive function

Stamps min_stamps(int n)

computing the mimimum number of necessary worth 7 stamps (stamp7 field) and worth 4 stamps (stamp4 field) for a total worth of n cents ($n \ge 20$). For instance, for n = 58, the result fields of min_stamps must be 6 and 4.

Observation

In order to complete the recursive case, note that recursive calls will always provide a *Stamps* tuple with *stamp4* field at most 6.

Observation

This problem is an example about using tuples in order to define functions computing a result that does not have a default representation as a single value.

Observation

You only need to submit the required classes; your main program will be ignored. Strictly obey the type definitions of the statement.

Problem information

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