

## 1 Problem

In England the currency is made up of pound, (£), and pence, (*p*), and there are eight coins in general circulation:

$1p, 2p, 5p, 10p, 20p, 50p, £1 (100p)$  and  $£2 (200p)$ .

It is possible to make £2 in the following way:

$1 \times 1 \text{ £} + 1 \times 50 \text{ p} + 2 \times 20 \text{ p} + 1 \times 5 \text{ p} + 1 \times 2 \text{ p} + 3 \times 1 \text{ p}$

How many different ways can £2 be made using any number of coins?

## 2 Solution

```
import Data.List
import qualified Data.Map as Map
import Data.Maybe
import System.Environment

main = do
  args ← getArgs
  putStrLn $ "INCOMPLETE"
```

## 3 Result

```
runhaskell problem31.1hs
```