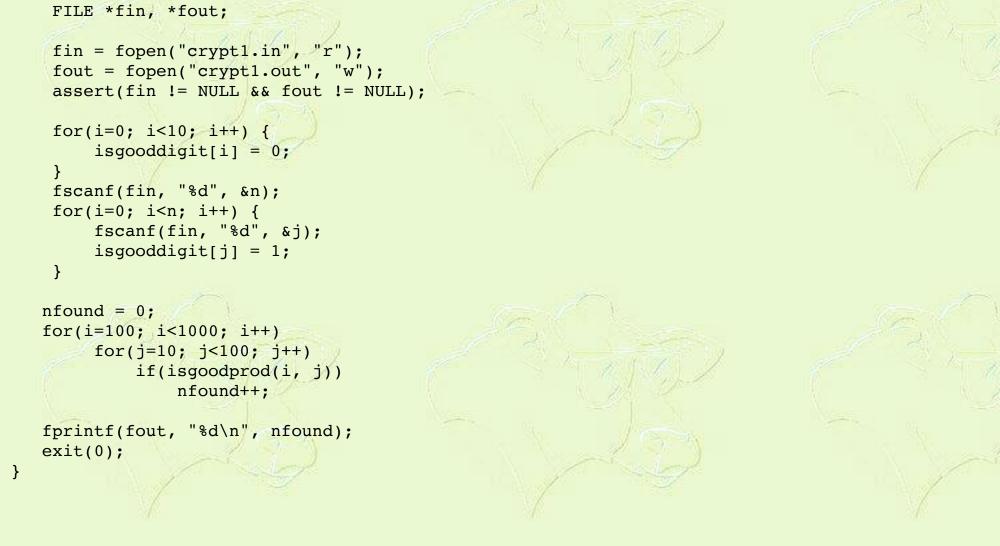
Prime Cryptarithm

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The constraints of this problem are small enough that we can just try all possible products of 3 digit * 2 digit numbers, and look to see if all the correct digits are used.

The function "isgood" checks that a number is composed only of acceptable digits, and "isgoodprod" checks that all the lines of the multiplication are composed of acceptable digits.

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <assert.h>
int isgooddigit[10];
                        /* isgooddigit[d] is set if d is an acceptable digit
/* check that every decimal digit in "n" is a good digit,
   and that it has the right number "d" of digits. */
isgood(int n, int d)
{
    if(n == 0)
                return 0;
    while(n) {
        if(!isgooddigit[n%10])
            return 0;
        n /= 10;
        d--;
    if(d == 0)
       return 1;
    else
       return 0;
/* check that every product line in n * m is an okay number */
isgoodprod(int n, int m)
    if(!isgood(n,3) \mid !isgood(m,2) \mid !isgood(n*m,4))
        return 0;
    while(m) {
        if(!isgood(n*(m%10),3))
            return 0;
        m /= 10;
    return 1;
void
main(void)
    int i, j, n, nfound;
```



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