

Write a c program to solve a system of linear congruences by applying the Chinese Remainder Theorem.

```
#include<stdio.h>
```

```
int findMinX(int num[], int rem[], int k)
```

```
{
```

```
    int x = 1;
```

```
    while (1)
```

```
    {
```

```
        int j;
```

```
        for (j=0; j<k; j++ )
```

```
            if (x%num[j] != rem[j])
```

```
                break;
```

```
        if (j == k)
```

```
            return x;
```

```
        x++;
```

```
    }
```

```
    return x;
```

```
}
```

```
int main(void)
```

```
{
```

```
    int num[100];
```

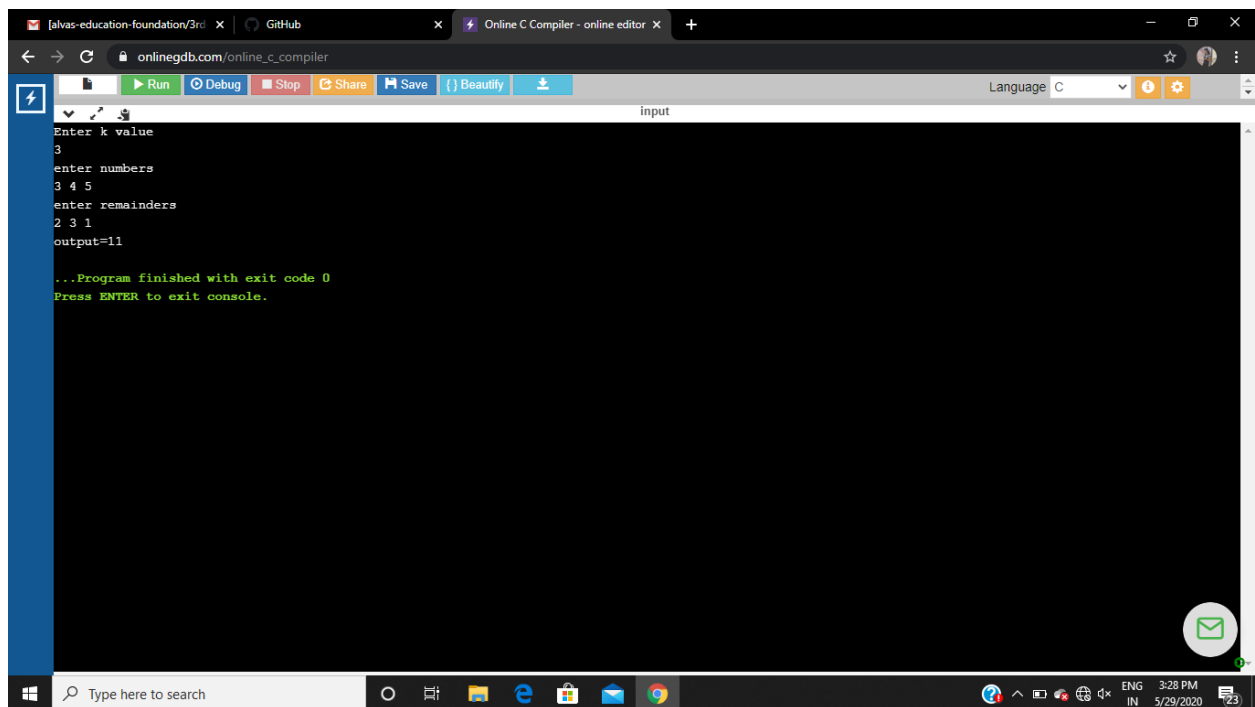
```
    int rem[100];
```

```
    int k;
```

```
    printf("Enter k value\n");
```

```
    scanf("%d",&k);
```

```
printf("enter numbers\n");  
  
for(int i=0;i<k;i++)  
  
scanf("%d",&num[i]);  
  
printf("enter remainders\n");  
  
for(int i=0;i<k;i++)  
  
scanf("%d",&rem[i]);  
  
printf("output=%d",findMinX(num, rem, k));  
  
return 0;  
  
}
```



The screenshot shows a web browser window with the URL `onlinegdb.com/online_c_compiler`. The browser has several tabs open, including 'alvas-education-foundation/3rd', 'GitHub', and 'Online C Compiler - online editor'. The compiler interface includes a toolbar with buttons for 'Run', 'Debug', 'Stop', 'Share', 'Save', and 'Beautify'. The language is set to 'C'. The main area is a terminal window titled 'input' with a dark background. It displays the following text: 'Enter k value', '3', 'enter numbers', '3 4 5', 'enter remainders', '2 3 1', 'output=11', and '...Program finished with exit code 0'. A green message box at the bottom right of the terminal says 'Press ENTER to exit console.' The Windows taskbar is visible at the bottom, showing the search bar and various application icons. The system clock indicates 3:28 PM on 5/29/2020.