



CPP Tracing 3

Another example of tracing with a larger program than the previous one will be as follows:

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int a, i;
```

```
    cin >> a;
```

```
    while (a) {
```

```
        //if a =0 it won't work
```

```
        if (a <= 2) {
```

```
            if (a == 2)
```

```
                cout << a << endl;
```

```
                break;
```

```
            }
```

```
        int b = a / 2;
```

```
        if (b * a != a) {
```

```
            for (i = 2; i * i <= a; i++)
```

```
                if (a % i == 0)
```

```
                    //if the remainder is 0 for will be stopped
```

```
                    break;
```

```
            if (i * i > a)
```



```
        cout << a << endl;
        //if i *i larger than a, the printing will be done
    }
    a--;
    //the program will not not as long as a is not equal 0
}
}
```