```cpp
 1: #include <iostream>
 2: using namespace std;
 3:
 4: int main(){
 5:
 6:     int num, sum = 1, digit;
 7:
 8:     cout << "Enter an integer number: ";
 9:     cin >> num;
10:
11:     while (num > 0){
12:         digit = num % 10;
13:         cout << digit;
14:         sum = sum * digit;
15:         num = num / 10;
16:         if (num > 0){
17:             cout << " * ";
18:         }
19:     }
20:
21:     cout << " = " << sum << endl;
22:
23:     if ((sum % 4 == 0)&&(sum % 5 == 0)&&(sum % 7 == 0)){
24:         cout << sum << " is multiples of 4, 5 and 7";
25:     }else if ((sum % 4 == 0)&&(sum % 5 == 0)){
26:         cout << sum << " is multiples of 4 and 5";
27:     }else if ((sum % 4 == 0)&&(sum % 7 == 0)){
28:         cout << sum << " is multiples of 7 and 4";
29:     }else if ((sum % 5 == 0)&&(sum % 7 == 0)){
30:         cout << sum << " is multiples of 7 and 5";
31:     }else if (sum % 7 == 0){
32:         cout << sum << " is multiples of 7";
33:     }else if (sum % 5 == 0){
34:         cout << sum << " is multiples of 5";
35:     }else if (sum % 4 == 0){
36:         cout << sum << " is multiples of 4";
37:     }else{
38:         cout << sum << " is not multiples of 4, 5 or 7";
39:     }
40:
41:     return 0;
42: }
```