

```

1: #include <iostream>
2: using namespace std;
3:
4: int main()
5: {
6:     int number;
7:
8:     cout << "Enter an integer number: ";
9:     cin >> number;
10:
11:     int product = 1;
12:
13:     while (number!=0)
14:     {
15:         product *= (number % 10);
16:         cout << number % 10;
17:         number = number / 10;
18:
19:
20:         if (number!=0)
21:         {
22:             cout << " * ";
23:         }
24:
25:
26:         else
27:         {
28:             cout << " = " << product << endl;
29:         }
30:     }
31:
32:     if ((product%4==0)&&(product%5==0)&&(product%7==0))
33:     {
34:         cout << product << " is multiples of 4,5 and 7" << endl;
35:     }
36:
37:     else if ((product%4==0)&&(product%7==0))
38:     {
39:         cout << product << " is multiples of 4 and 7" << endl;
40:     }
41:
42:     else if ((product % 5 == 0) && (product % 7 == 0))
43:     {
44:         cout << product << " is multiples of 5 and 7" << endl;
45:     }
46:
47:     else if ((product % 4 == 0) && (product % 5 == 0))
48:     {
49:         cout << product << " is multiples of 4 and 5" << endl;
50:     }
51:
52:     else if (product % 4 == 0)
53:     {
54:         cout << product << " is a multiple of 4" << endl;
55:     }

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56:
57:     else if (product % 5 == 0)
58:     {
59:         cout << product <<" is a multiple of 5" << endl;
60:     }
61:
62:     else if (product % 7 == 0)
63:     {
64:         cout << product <<" is a multiple of 7" << endl;
65:     }
66:
67:
68: return 0;
69: }
70:
71:
```