```
1
2
3       typedef double XFLOAT
4       typedef double OTA_FLOAT
5
6   using  std
7
8
9   {
10
11  unsigned int gcd(unsigned int const &a, unsigned int const &b)
12  {
13      int larger = max(a, b)
14      int smaller = min(a, b)
15      int gcdTest = smaller
16      int rest = 0
17
18      if (a == b)
19          return a
20      if (a == 0 || b == 0)
21          return -1
22
23      while (gcdTest > 0)
24      {
25          rest = larger % gcdTest
26          if (rest == 0)
27              if (smaller % gcdTest == 0)
28                  return gcdTest
29              else
30                  gcdTest = smaller % gcdTest
31          else
32              gcdTest = rest
33      }
34
35      return -1
36  }
37
38  int NextHigherPow2(int x)
39  {
40      x--
41      for (int i=1  i<sizeof(int)*8  i=i*2)
42          x = x | x >> i
43      return x+1
44  }
45
46  int CalcExponent(int number)
47  {
48      int exp, temprez
49
50      temprez = number
51      exp = 0
52      while( temprez != 1)
53      {
54          temprez = temprez/2
55          ++exp
56      }
57
58      return exp
59
60  }
61
62  }
63
```