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#include <iostream>
#include <cmath>

const int taille=100;
int a[taille];
int h[taille];
int euler[taille];
int premiers[taille];

int prime(int atester)
{
  unsigned long diviseur=2;
  bool pastrouve=true;
  unsigned long k = 2;
  if (atester == 1) return 0;
  if (atester == 2) return 1;
  if (atester == 3) return 1;
  if (atester == 5) return 1;
  if (atester == 7) return 1;
  while (pastrouve)
    {
    if ((k * k) > atester) return 1;
    else
      if ((atester % k) == 0) {
            return 0 ;
      }
            else k++;
    }
}

int f(int x)
{
  return (3 * x * x - x) / 2;
}

int g(int x)
{
  return (3 * x * x + x) / 2;
}


int remplis_h()
{int i,y,z;

  for (i=1; i<=taille; i++)
    if (i % 2 == 0)
      {
            y = i / 2;
            z=f(y);
            h[i]=z;
      }
    else
```

```
      {
            y = (i-1) / 2;
            z=g(y);
            h[i]=z;
      }
}

int remplis_a()
{int i;

  for (i=1; i<=taille; i++)
    if (i % 4 == 1) a[i]=1;
    else if (i % 4 == 2) a[i]=1;
    else if (i % 4 == 0) a[i]=-1;
    else if (i % 4 == 3) a[i]=-1;
}

int calcule_euler()
{int x, y, somme;

  euler[0]=1;
  euler[1]=1;
  for (x=2; x<=taille; x++)
    {
      somme = 0; y=1;
      while (x-h[y+1] >= 0)
        {
              if (x == h[y+1]) somme = somme + a[y] * x;
              else somme = somme + a[y] * euler[x-h[y+1]];
              y++;
            }
      euler[x]=somme;
    }
}

int main (int argc, char* argv[])
{
  int i;

  remplis_a();
  remplis_h();
  for (i = 1 ; i <= taille ; i++) premiers[i]=0;
  for (i = 1 ; i <= taille ; i++) if (prime(i)) premiers[i]=i;
  calcule_euler();
  for (i=1 ; i <= taille ; i++)
    {
      //std::cout << "a" << a[i] << "h" << h[i] << "p" << premiers[i] << "i" << i << " " << a[i]*h[i]-premiers[i] << "\n" ;
      std::cout << euler[i] << "\n" ;
    }
}
```