1. The greatest integer that divides two integers without producing a remainder is known as the greatest common divisor, or GCD. For instance, 12 and 36 have the highest common divisor of all.

2. A recursive algorithm for determining the greatest common divisor of two integers is the Euclidean Algorithm. The algorithm operates by computing the remainder each time the bigger integer is divided by the smaller integer, and then substituting the smaller integer for the larger integer. When the remainder equals 0, the process is finished, and the smaller integer is the two original integers' greatest common factor.

Here are the steps of the Euclidean Algorithm:

1. Let a and b be the two integers.
2. If a < b, then swap a and b.
3. Calculate the remainder of a / b.
4. Set a to b.
5. Set b to the remainder of a / b.
6. Repeat steps 3-5 until b is 0.
7. The value of a is the greatest common divisor of a and b.

3.

```
def gcd(a, b):
    if b == 0:
        return a
    else:
        return gcd(b, a % b)
```

4.

```
def gcd(a, b):
    while b != 0:
        a, b = b, a % b
    return a
```
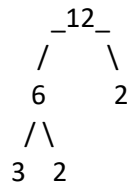
5. The process of dividing a number into its prime factors is known as prime factorization. A number that can be divided only by itself and by one is called a prime factor. The prime factorization of 12 is 2 * 2 * 3, for instance.

6.

```
   _12_
  /    \
 6      2
/ \
3  2
```

12 can be divided into 2 and 6. Two and three can divide the number six. Since 2 is a prime number, it cannot be divided by any other numbers. Therefore, 2 * 2 * 3 is the prime factorization of 12.