Write a function that computes the greatest common divisor of four natural numbers $a$, $b$, $c$ and $d$ using the fast version of the Euclidean algorithm.

**Interface**

- **C++, C**
  
  ```c
  int gcd4(int a, int b, int c, int d);
  ```

- **Java**
  
  ```java
  public static int gcd4(int a, int b, int c, int d);
  ```

- **Python**
  
  ```python
  gcd4(a, b, c, d)  # returns int
  ```

**Precondition**

The four numbers are strictly greater than zero.

**Observation**

You only need to submit the required procedure; your main program will be ignored.

**Hint**

Using the function $gcd(a, b)$ of the exercise should be useful.