

```

public static int gcd(int a, int b) {
    int r = 0;
    while (a % b != 0) {
        r = a % b;
        a = b;
        b = r;
    } // mod check loop
    return b;
} // gcd

gcd(39, 24)

```

loop	R (int)	A (int)	b (int)
0	0	39	24
1	15	24	15
2	9	15	9
3	6	9	6
4	3	6	3
5			

~~6 % 3 == 0~~

returns 3