

```
01 public class GcdCalculator {
02     public static void main(String[] args) {
03         GcdCalculator calc = new GcdCalculator();
04         System.out.println(calc.gcd(12,18)); // 6
05         System.out.println(calc.gcd(16,20)); // 4
06         System.out.println(calc.gcd(120,900)); // 60
07         System.out.println(calc.gcd(105,26)); // 1
08     }
09
10     public int gcd(int a, int b) {
11         if (a == 0) {
12             return Math.abs(b);
13         }
14         if (b == 0) {
15             return Math.abs(a);
16         }
17
18         while (b != 0) {
19             int h = a % b;
20             a = b;
21             b = h;
22         }
23         return Math.abs(a);
24     }
25 }
```

```
01 #include <stdio.h>
02 #include <stdlib.h>
03
04 int gcd(int a, int b);
05
06 int main() {
07     printf("%d\r\n", gcd(12,18)); // 6
08     printf("%d\r\n", gcd(16,20)); // 4
09     printf("%d\r\n", gcd(120,900)); // 60
10     printf("%d\r\n", gcd(105,26)); // 1
11     return 0;
12 }
13
14 int gcd(int a, int b) {
15     if (a == 0) {
16         return abs(b);
17     }
18     if (b == 0) {
19         return abs(a);
20     }
21     while (b != 0) {
22         int h = a % b;
23         a = b;
24         b = h;
25     }
26     return abs(a);
27 }
```

```
01 def gcd(a, b):
02     if a == 0:
03         return abs(b)
04     if b == 0:
05         return abs(a)
06
07     while b != 0:
08         h = a % b
09         a = b
10         b = h
11     return abs(a)
12
13 print(gcd(12,18)) # 6
14 print(gcd(16,20)) # 4
15 print(gcd(120,900)) # 60
16 print(gcd(105,26)) # 1
```

JavaScript

```
01 function gcd(a, b) {
02   if (a == 0) {
03     return Math.abs(b);
04   }
05   if (b == 0) {
06     return Math.abs(a);
07   }
08   while (b != 0) {
09     var h = a % b;
10     a = b;
11     b = h;
12   }
13   return Math.abs(a);
14 }
15
16 console.log(gcd(12,18)) // 6
17 console.log(gcd(16,20)) // 4
18 console.log(gcd(120,900)) // 60
19 console.log(gcd(105,26)) // 1
```

```
01 package main
02
03 import "fmt"
04
05 func main() {
06     fmt.Println(gcd(12,18)) // 6
07     fmt.Println(gcd(16,20)) // 4
08     fmt.Println(gcd(120,900)) // 60
09     fmt.Println(gcd(105,26)) // 1
10 }
11
12 func gcd(a, b int) int {
13     if a == 0 {
14         return Abs(b);
15     }
16     if b == 0 {
17         return Abs(a);
18     }
19     for b != 0 {
20         var h int = a % b;
21         a = b;
22         b = h;
23     }
24     return Abs(a);
25 }
26
27 func Abs(x int) int {
28     if x < 0 {
29         return -x
30     }
31     return x
32 }
```

```
01 import kotlin.math.abs
02
03 fun main() {
04     println(gcd(12,18)); // 6
05     println(gcd(16,20)); // 4
06     println(gcd(120,900)); // 60
07     println(gcd(105,26)); // 1
08 }
09
10 fun gcd(a: Int, b: Int): Int {
11     if (a == 0) {
12         return abs(b);
13     }
14     if (b == 0) {
15         return abs(a);
16     }
17
18     var c: Int = a;
19     var d: Int = b;
20     while (d != 0) {
21         val h = c % d;
22         c = d;
23         d = h;
24     }
25     return abs(c);
26 }
27
```