Iterative GCD:

```
public int gcd(int x, int y) {
        int temp; [1]
        while(y != 0) { [n]
                if(x >= y && x != 0) { [1]
                        temp = y; [1]
                        y = x % y; [1]
                        x = temp; [1]
                }
        }
        return x; [1]
}
```

Big-O:

O(f(x)) = 1 + n(1 + 1 + 1 + 1) + 1
= 2 + n(4)
= 2 + 4n
= 0 + 1n
= O(n)

Iterative Hanoi:

```
public int hanoi(int n) {
        int temp = 1; [1]
        while (n != 1) { [n]
                if (n > 1) { [1]
                        temp = 2 * temp + 1; [1]
                        n--; [1]
                }
        }
        return temp; [1]
```

}

Big-O:

O(f(x)) = 1 + n(1 + 1 + 1) + 1

= 2 + n(3)

= 2 + 3n

= 0 + 1n

= O(n)