
Algorithm 1 Euclid's algorithm

Require: TWO NON-NEGATIVE INTEGERS a b where $a \geq b$ **Ensure:** $d = \gcd(a, b)$ 1: $r \leftarrow a \bmod b$ 2: **while** $r \neq 0$ **do**3: $a \leftarrow r$ 4: $b \leftarrow r$ 5: $r \leftarrow a$ 6: **end while**7: **return** b
