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## Algorithm 1 Euclid's algorithm 1: **procedure** Euclid(a, b) $\triangleright$ The g.c.d. of a and b $r \leftarrow a \bmod b$ $\triangleright$ We have the answer if r is 0 while $r \neq 0$ do $a \leftarrow b$ 4: $b \leftarrow r$ $r \leftarrow a \bmod b$ 6: end while 7: $\mathbf{for} < \mathtt{condition} > \mathbf{do}$ 8: <do something> 9: end for 10: 11: $\mathbf{return}\ b$ $\triangleright$ The gcd is b 12: end procedure