─────────────── MODULE *EuclidsAlgorithm* ───────────────

EXTENDS *Integers*

VARIABLE x, y

$Init \triangleq \land x = 1024$
$\qquad\quad\, \land y = 400$

Euclid's Algorithm for finding the greatest common divisor of two numbers.

$Next \triangleq \lor \land x > y$
$\qquad\qquad\quad\, \land x' = x - y$
$\qquad\qquad\quad\, \land y' = y$
$\qquad\quad\; \lor \land y > x$
$\qquad\qquad\quad\, \land y' = y - x$
$\qquad\qquad\quad\, \land x' = x$

$Invariant \triangleq x \neq y$

───

\ * Modification History
\ * Last modified Sun *Apr* 21 20:37:03 *PDT* 2019 by *jasondebolt*
\ * Created Sun *Apr* 21 20:36:34 *PDT* 2019 by *jasondebolt*