GIVEN $f[0..N)$, $g[0..N)$ OF INT, CONSTRUCT A PROGRAM TO DETERMINE WHETHER THE ARRAYS ARE EXACT COPIES OF EACH OTHER

POST:

$$\langle \forall j : 0 \le j < n : f.j = g.j \rangle \wedge \left(f.n \neq g.n \vee (n = N-1 \wedge f.n = g.n) \right)$$

— . —

DETERMINE WHETHER THE WORD "at" IS PRESENT IN THE ARRAY $g[0..100000)$ OF CHAR

POST:

$$\langle \forall j : 0 \le j < n : g.j \neq \text{"a"} \vee g.(j+1) \neq \text{"t"} \rangle \wedge$$

$$\Big(\big(g.n = \text{"a"} \wedge g.(n+1) = \text{"t"} \big) \vee \big(n = 99998 \wedge (g.n \neq \text{"a"} \vee g.(n+1) \neq \text{"t"}) \big) \Big)$$

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Determine if $f[0..1000)$ of INT is Ascending ($\leq$)

Post:

$$\langle \forall j : 0 \leq j < n : f.j \leq f.(j+1) \rangle \wedge$$

$$(f.n > f.(n+1) \vee (n = 998 \wedge f.n \leq f.(n+1)))$$

Given $f[0..100)$, $g[202..302)$ of CHAR

Does g contain the Reverse of f.

Post:

$$\langle \forall j : 0 \leq j < n : f.j = g.(301-j) \rangle \wedge$$

$$(f.n \neq g.(301-n) \vee (n = 99 \wedge f.n = g.(301-n)))$$