We HAVE 2 POSSIBLE OUTCOMES, EITHER IT IS AN EXACT

COPY OR IT ISN'T.

We CAN WRITE EACH of THESE INDIVIDUALLY

IT ISN'T A COPY

$$\langle \forall j : 0 \le j < n : f.j = f.(50+j) \rangle \land f.n \ne f.(50+n)$$

OR

IT IS A COPY

$$\langle \forall j : 0 \le j < n : f.j = f.(50+j) \rangle \land n = 49 \land f.n = f.(50+n)$$

We COMBINE TO GET THE POSTCONDITION

POST : $\langle \forall j : 0 \le j < n : f.j = f.(50+j) \rangle \land \big( f.n \ne f.(50+n)$

$$\lor$$

$$(n = 49 \land f.n = f.(50+n)) \big)$$

AND USING THE RULE FROM LOGIC

$$[\, P \lor (\neg P \land Q) \equiv P \lor Q \,]$$

We CAN SIMPLIFY TO GET

POST : $\langle \forall j : 0 \le j < n : f.j = f.(50+j) \rangle \land \big( f.n \ne f.(n+50) \lor n = 49 \big)$

$$* \ (0) \ C.n \ = \ \langle \forall j : 0 \leq j < n : f.j = f.(50+j) \rangle \quad , \ 0 \leq n \leq 50$$

ETC. REMAINDER IS EASY.