$2^{32}-$
$1(4294967295)$
$count >$
$0count <$
$0count =$
0

$LPUSHX$	$Ins(0, ele)$
$RPUSHX$	$Ins(len, ele)$
$LINSERT$	$Ins(pos, ele)$
$LPOP$	$Del(0)$
$RPOP$	$Del(len-1)$
$RPOPLPUSH$	$Del(len-1)$
$LSET$	$Set(pos, ele)$
$LPUSH$	$Ins(0, str)$
$RPUSH$	$Ins(len, str)$
$LTRIM$	$Del(0, pos1-1; pos2+1, len-pos2-1)$
$LREM$	$Del(pos1, len1; pos2, len2; ...; posk, lenk)$

len
$OT(Ins(p_{k+1}, s_{k+1}), Del(p_1, l_1; p_2, l_2; ...; p_k, l_k))$
$= \{ I\ ns(p_{k+1}, s_{k+1})p_{k+1} \leq p_1 no-opp_i < p_{k+1} < p_i+l_i Ins(p_{k+1}-l_1-l_2-...-l_i, s_{k+1})p_i+l_i \leq p_{k+1} \leq p_{i+1} Ins(p_{k+1}-l_1-l_2$
(1)
$|s||s|$
$|s|$
$OT(Del(p_1, l_1; p_2, l_2; ...; p_k, l_k), Ins(p_{k+1}, s_{k+1}))$
$= \{ D\ el(p_1+|s_{k+1}|, l_1; p_2+|s_{k+1}|, l_2; ...; p_i, l_i; p_{i+1}+|s_{k+1}|, l_{i+1}; ...; p_k+|s_{k+1}|, l_k)p_{k+1} \leq p_1 Del(p_1, l_1; p_2, l_2; ...; p_{i-1}, l_{i-1}; p_i,$
(2)
$poslennewposnewlenop2$
$op2newposop2posnewlenop2[newpos, newpos+$
$newlen]op2$

$OT(Del(p_{k+1}, l_{k+1}), Del(p_1, l_1; p_2, l_2; ...; p_k, l_k))$

p_{k+1}	$p_{k+1}+l_{k+1}$	p_{k+1}
$p_{k+1} < p_1$		p_{k+1}
$p_i \leq p_{k+1} < p_i+l_i$		$p_i-l_1-l_2-...-l_{i-1}$
$p_i+l_i \leq p_{k+1} < p_{i+1}$		$p_{k+1}-l_1-l_2-...-l_{i-1}$
$p_{k+1} \geq p_k+l_k$		$p_{k+1}-l_1-l_2...-l_k$

$OT(Del(p_{k+1}, l_{k+1}), Del(p_1, l_1; p_2, l_2; ...; p_k, l_k))$

p_{k+1}	$p_{k+1}+l_{k+1}$		l_{k+1}
$p_{k+1} < p_1$	$p_{k+1}+l_{k+1} \leq p_1$		l_{k+1}
	$p_j < p_{k+1}+l_{k+1} \leq p_j+l_j$	$p_j-l_1-l_2-...-l_{j-1}-p_{k+1}$	
	$p_j+l_j < p_{k+1}+l_{k+1} \leq p_{j+1}$	$l_{k+1}-l_1-l_2-...-l_j$	
	$p_{k+1}+l_{k+1} > P_k+l_k$	$l_{k+1}-l_1-l_2-...-l_k$	
$p_i \leq p_{k+1} < p_i+l_i$	$p_j < p_{k+1}+l_{k+1} \leq p_j+l_j$	$p_j-p_i-l_i-l_{i+1}...-l_{j-1}$	
	$p_j+l_j < p_{k+1}+l_{k+1} \leq p_{j+1}$	$p_{k+1}+l_{k+1}-p_i-l_i-l_{i+1}-...-l_j$	
	$p_{k+1}+l_{k+1} > P_k+l_k$	$p_{k+1}+l_{k+1}-p_i-l_i-l_{i+1}-...-l_k$	
$p_i+l_i \leq p_{k+1} < p_{i+1}$	$p_j < p_{k+1}+l_{k+1} \leq p_j+l_j$	$p_j-p_{k+1}-l_{i+1}-l_{i+2}-...-l_{j-1}$	
	$p_j+l_j < p_{k+1}+l_{k+1} \leq p_{j+1}$	$l_{k+1}-l_{i+1}-l_{i+2}-...-l_j$	
	$p_{k+1}+l_{k+1} > P_k+l_k$	$l_{k+1}-l_{i+1}-l_{i+2}-...-l_k$	
$p_{k+1} \geq p_k+l_k$		l_{k+1}	

$OT(Del(p_{k+1}, l_{k+1}), Del(p_1, l_1; p_2, l_2; ...; p_k, l_k))$
$= \{ D\ el(p_{k+1}, l_{k+1})p_{k+1} < p_1 p_{k+1}+l_{k+1} \leq p_1 Del(p_{k+1}, p_j-l_1-l_2-...-l_{j-1}-p_{k+1})p_{k+1} < p_1 p_j < p_{k+1}+l_{k+1} \leq p_j+l_j Del($

$_i-$
l_1-
l_2-
$...-$
l_{i-1}, p_j-
p_i-
l_i-
$l_{i+1}...-$
$l_{j-1})p_i \leq$
$p_{k+1} <$
p_i+
l_i
$p_j <$
$p_{k+1}+$
$l_{k+1} \leq$
p_j+
l_j
$Del(p_i-$
l_1-
l_2-
$...-$
$l_{i-1}, p_{k+1}+$
$l_{k+1}-$
p_i-
l_i-
$l_{i+1}-$
$...-$
$l_j)p_i \leq$
$p_{k+1} <$
p_i+
l_i
p_j+
$l_j <$