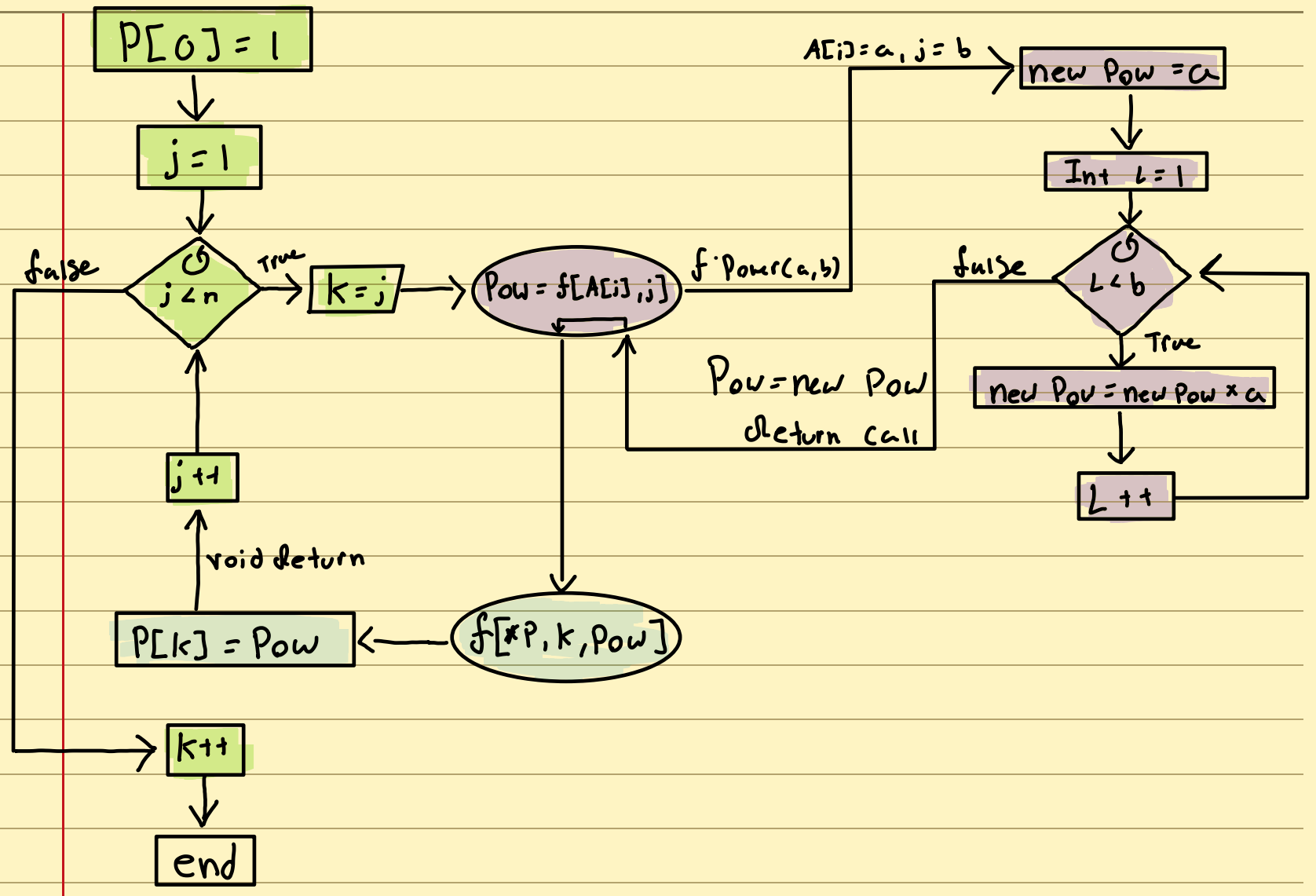
function

main

Power

new element



Registers	Data	Variable
$ S_0 Int	* A	A[0]
$ S_1 Int	n	Size of A
$ S_2 Int	* P	P[0]
$ S_3 Int	k	Size of P
$ S_4	j < n	j = 1
$ S_5		
$ S_6		
$ S_7		

Registers	Data / use
$ t_0	0:1 {T:F} for branches
$ t_1	offset, address, value
$ t_2	Value
$ t_3	
$ t_4	
$ t_5	
$ t_6	
$ t_7	
$ t_8	
$ t_9	

```
int main() {
    // Variable Declaration
    int *A, *P;      // Base addresses of A and P
    int n, k;      // Lengths of arrays A and B
    int pow;     // Return value from power function

    // Task of main function
    P[0] = 1;     // 0th element = A[0]^0 = 1

    for (int j = 1; j < n; j++) {
        k = j;     // Current length of array B
        pow = power(A[j], j);
        newElement(P, k, pow);
    }
    k++;
}

int power(int a, int b) {
    int pow = a;
    for (int l = 1; l < b; l++) {
        pow = pow * a;
    }
    return(pow);
}

void newElement(int* P, int k, int pow) {
    P[k] = pow;
}
```