作业 1

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4.3 解:

StrLength(s) = 14;

StrLength(t) = 4;

SubString(s,8,7) = ‘STUDENT’;

SubString(t,2,1) = ‘O’;

Index(s, ‘A’) = 3;

Index(s,t) = 0;

Replace(s,’ STUDENT’,q) = ‘I AM A WORKER’;

Concat(SubString(s,6,2),Concat(t,SubString(s,7,8)))

= ‘A GOOD STUDENT’;

4.4 解:

s = ‘A SAMPLE IS’;

t = ‘A GOOD’;

u = ‘ONE’;

v = ‘A SAMPLE IS A GOOD ONE’;

g = ‘IS’;

StrLength(s) = 11;

Index(v,g) = 10;

Index(u,g) = 0;

4.8 解：

Nextval:-1,0,-1,1,0,-1,0,0,3,-1;

1.

	A	D	A	B	B	A	D	A	D	A
Nextval[ ]	-1	0	-1	1	0	-1	0	0	3	-1

2.

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
A	D	A	B	B	A	D	A	D	A											
-1	0	-1	1	0	-1	0	0	3	-1											

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
A	D	A	B	B	A	D	A	D	A											
-1	0	-1	1	0	-1	0	0	3	-1											

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
A	D	A	B	B	A	D	A	D	A											
-1	0	-1	1	0	-1	0	0	3	-1											

3.

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
			A	D	A	B	B	A	D	A	D	A								
			-1	0	-1	1	0	-1	0	0	3	-1								

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
									A	D	A	B	B	A	D	A	D	A		
									-1	0	-1	1	0	-1	0	0	3	-1		

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
									A	D	A	B	B	A	D	A	D	A		
									-1	0	-1	1	0	-1	0	0	3	-1		

4.

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
										A	D	A	B	B	A	D	A	D	A	
										-1	0	-1	1	0	-1	0	0	3	-1	

A	D	B	A	D	A	B	B	A	A	B	A	D	A	B	B	A	D	A	D	A
											A	D	A	B	B	A	D	A	D	A
											-1	0	-1	1	0	-1	0	0	3	-1

5.1 解：

(1) 6 * 8 * 6 = 288 Byte;

(2) LOC(5,7) = LOC(0,0) + (8 * 5 + 7) * 6

= 1000 + 282 = 1282;

(3) LOC(1,4) = LOC(0,0) + (8 * 1 + 4) * 6

= 1000 + 72 = 1072;

(4) LOC(4,7) = LOC(0,0) + (6 * 7 + 4) * 6

= 1000 + 276 = 1276;

5.8 解：

$$k = \left[\frac{i+j-1}{4}\right] * 4 + [(i+1)\%2] * 2 + (j+1)\%2;$$

5.11 解：

(1)L1:

GetHead[GetTail[GetTail[(apple,pear,banana,orange)]]];

(2)L2:

GetHead[GetTail[GetHead[((apple,pear),(banana,orange))]]];

(3)L3:

GetHead[GetHead[GetTail[GetTail[GetHead[(((apple),(pear),(banana),(orange)))]]]]];

(4)L4:

GetHead[GetHead[GetHead[GetTail[GetTail[apple,(pear),((banana)),(((orange)))]]]]];

(5)L5:

GetHead[GetTail[GetTail[GetHead[((((apple))),((pear)),(banana),orange)]]]];

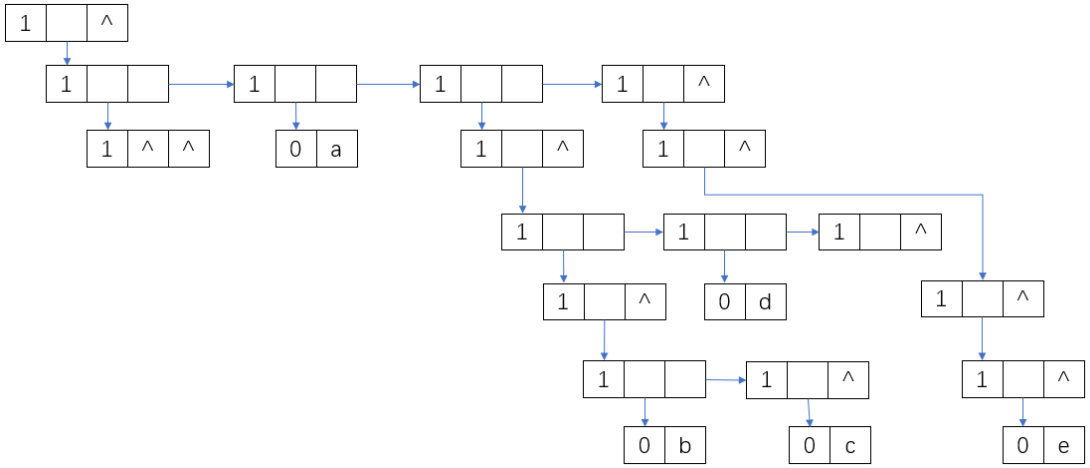
(6)L6:

GetTail[GetHead[((((apple),pear),banana),orange)]];

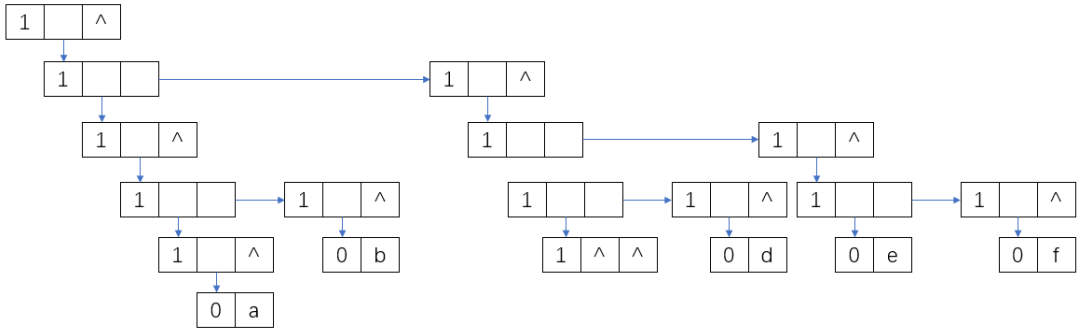
(7)L7:

GetHead[GetHead[GetTail[GetTail[(apple,(pear,(banana),orange))]]]];

5.12 解：(1)



(2)



5.15 解：

幂集的递归定义：

基本项：P(A) = ∅， 当 A 为空集时，

P(A) = {∅,A}，当|A| = 1 时，

归纳项：P（A） = P（A - {a}）U P({a})，a∈A,当 A 不为空集时