Rachel Chiang CS 411-01 Project #1

TEST #1

Input givenOddCases.lex

```
// keywords that are reserved words. There should be 20.
boolean break class double else extends false for if implements
int interface newarray println readln return string true void while
// case-sensitive identifiers
IF hello Hello
// ifintvoid versus if(23void
ifintvoid
if(23void
// integer constants
0x0
0X12aE
012
// valid double constants
0.12
12.
12.2E+2
12.E+2
// invalid double constants
.12
1.2E
.12E+2
// valid string
"hello"
//invalid string
"good
bye"
                                               Output
boolean break class double else extends booleanconstant for if implements
int interface newarray println readln return string booleanconstant void while
id id id
id
if leftparen intconstant void
intconstant
intconstant
intconstant
intconstant
doubleconstant
doubleconstant
doubleconstant
```

doubleconstant

stringconstant

stringconstant

switch: A -1	B -1	C -1	D -1	E 131	F -1	G -1	H 116	I 109	J -1	K -1	L -1	M -1
N -1	0 -1	P -1	Q -1	R -1	S -1	T -1	U -1	V -1	W -1	X -1	Y -1	Z -1
a -1	b 0	c 12	d 17	e 23	f 34	g -1	h 111	i 42	j -1	k -1	1 -1	m -1
n 64	o -1	р 72	q -1	r 79	s 90	t 96	u -1	v 100	w 104	x -1	y -1	z -1
<pre>index: symbol: next: 0 0 7</pre>		1 0	2 1	3 e		4 a	5 n	6 \$		7 r	8 e	9 a
10 k		11 \$	12 1	13 a		14 s	15 s	16 \$		17 0	18 u	19 b
20 1		21 e	22 \$	23 1 27		24 s	25 e	26 \$		27 x	28 t	29 e
30 n		31 d	32 s	33 \$		34 a 39	35 1	36 s		37 e	38 \$	39 o
40 r		41 \$	42 f 44	43 \$ 121		44 m 54	45 p	46 1		47 e	48 m	49 e
50 n		51 t	52 s	53 \$		54 n	55 t	56 \$ 57		57 e	58 r	59 f
60 a		61 c	62 e	63 \$		64 e	65 w	66 a		67 r	68 r	69 a
70 y		71 \$	72 r	73 i		74 n	75 t	76 1		77 n	78 \$	79 e
80 a		81 d	82 1	83 n		84 \$	85 t	86 u		87 r	88 n	89 \$

90 t	91 r	92 i	93 n	94 g	95 \$	96 r	97 u	98 e	99 \$
100 o	101 i	102 d	103 \$ 130	104 h	105 i	106 1	107 e	108 \$	109 F
110 \$	111 e	112 1	113 1	114 o	115 \$	116 e	117 1	118 1	119 o
120 \$	121 i 129	122 n	123 t	124 v	125 o	126 i	127 d	128 \$	129 \$
130 \$	131 \$ 132	132 \$							

TEST #2 Input givenToy.lex

```
int fact (int x) {
// recursive factorial function
    if (x>1) return x * fact(x-1);
    else return 1;
}
void main () {
/* Winter Quarter 2015
CS 411 project #1
A lexical analyzer */
    int x;
    int total;
    println ("factorial of 10 is ", fact (10), " from the recursive function");
    total = 1; x = 1;
    for (; x <= 10; ) { total = total * x; x = x + 1; }
    println ("iterative result of 10! is ", total);
}
class cs411 {
    int Funny;
    double funny;
    boolean flag;
    string s;
    int [] a;
    flag = true;
    Funny = 0X89aB; funny = 123456E+7;
    s = "hello world";
    while (x = (Funny/10) < 0) println (s, "have fun !");
    a = newarray (20, int);
}
                                               Output
int id leftparen int id rightparen leftbrace
```

if leftparen id greaterthan intconstant rightparen return id mult id leftparen id sub intconstant rightparen semicolon else return intconstant semicolon rightparee

```
int id semicolon
```

int id semicolon

println leftparen stringconstant comma id leftparen intconstant rightparen comma stringconstant rightparen semicolon

id assignop intconstant semicolon id assignop intconstant semicolon

for leftparen semicolon id lessequal intconstant semicolon rightparen leftbrace id assignop id mult id semicolon id assignop id add intconstant semicolon rightbrace

println leftparen stringconstant comma id rightparen semicolon

rightbrace

class id leftbrace

int id semicolon

double id semicolon

boolean id semicolon

string id semicolon

int leftbracket rightbracket id semicolon

id assignop booleanconstant semicolon

id assignop intconstant semicolon id assignop intconstant id add intconstant semicolon id assignop stringconstant semicolon

while leftparen id assignop leftparen id div intconstant rightparen lessthan intconstant rightparen println leftparen id comma stringconstant rightparen semicolon

id assignop newarray leftparen intconstant comma int rightparen semicolon rightbrace

swit	tcl	n:
		٨

Α	В	C	D	Ε	F	G	Н	I	J	K	L	Μ
-1	-1	-1	-1	117	74	-1	-1	-1	-1	-1	-1	-1
N	0	Р	Q	R	S	Т	U	V	W	Χ	Υ	Z
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
а	b	С	d	е	f	g	h	i	j	k	1	m
109	90	63	79	21	3	-1	-1	0	-1	-1	-1	30
									W			
129	-1	42	-1	12	101	37	-1	26	119	8	-1	-1

index:

symbol
next:

ol: :									
0 n 9	1 t	2 \$ 7	3 a 52	4 c	5 t	6 \$ 19	7 \$ 34	8 \$ 11	9 f
10 \$	11 \$ 18	12 e	13 t	14 u	15 r	16 n	17 \$ 25	18 \$ 20	19 \$ 49
20 \$ 35	21 1	22 s	23 e	24 \$	25 \$	26 o	27 i	28 d	29 \$
30 a	31 i	32 n	33 \$	34 \$ 36	35 \$ 51	36 \$ 73	37 o 111	38 t	39 a
40 1	41 \$ 50	42 r	43 i	44 n	45 t	46 1	47 n	48 \$ 61	49 \$

50 \$ 56	51 \$ 55	52 o 85	53 r	54 \$	55 \$ 58	56 \$ 57	57 \$ 62	58 \$ 59	59 \$ 60
60 \$ 124	61 \$ 126	62 \$	63 1 68	64 a	65 s	66 s	67 \$	68 s	69 4
70 1	71 1	72 \$	73 \$ 108	74 u	75 n	76 n	77 y	78 \$ 115	79 o
80 u	81 b	82 1	83 e	84 \$	85 u 97	86 n	87 n	88 y	89 \$ 116
90 o	91 o	92 1	93 e	94 a	95 n	96 \$	97 1	98 a	99 g
100 \$ 110	101 t 107	102 r	103 i	104 n	105 g	106 \$	107 \$ 118	108 \$ 137	109 \$ 128
110 \$	111 r	112 u	113 e	114 \$	115 \$ 125	116 \$	117 \$	118 \$ 127	119 h
120 i	121 1	122 e	123 \$	124 \$	125 \$	126 \$	127 \$	128 \$	129 e
130 w	131 a	132 r	133 r	134 a	135 y	136 \$	137 \$		

TEST #3 Input givenTrie.lex

// This should output the same trie structure as was given in the project // specifications. I am uncertain about whether to store true or false

// but I have chosen to store them anyway

boolean break class double else extends false for if implements int interface $$\operatorname{\textsc{Output}}$$

boolean break class double else extends booleanconstant for if implements int interface

SW	1	u	LI	١,	•

					F							
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
N	0	Р	Q	R	S	Т	U	V	W	Χ	Υ	Z
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
a	b	c	d	е	f	g	h	i	j	k	1	m
-1	0	12	17	23	34	-1	-1	42	-1	-1	-1	-1
n	0	р	q	r	S	t	u	V	W	х	У	z
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

<pre>index: symbol: next:</pre>									
0	1	2	3	4	5	6	7	8	9
О	0	1	е	a	n	\$	r	е	a
7									
10	11	12	13	14	15	16	17	18	19
k	\$	1	a	S	S	\$	0	u	b
	Ť		_			,		_	_
20	21	22	23	24	25	26	27	28	29
1	е	\$	1	S	е	\$	Х	t	е
			27						
30	31	32	33	34	35	36	37	38	39
n	d	S	\$	a	1	S	е	\$	0
				39					
40	41	42	43	44	45	46	47	48	49
r	\$	f	\$	m	р	1	e	m	е
	·	44	·	54	'				
50	51	52	53	54	55	56	57	58	59
n	t	S	\$	n	t	\$	е	r	f
						57			
60	61	62	63						
a	С	е	\$						

TEST #4 Input sillyCase.lex classes Bad implement other { printf("oh"); } Output id id id id leftbrace id leftparen stringconstant rightparen semicolon rightbrace switch: В C D Ε F G Н J Κ Α Ι L Μ -1 7 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 N 0 Ρ Q R S Т U ٧ W Х Υ Ζ -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 j b С d e f h i k 1 а g m -1 -1 0 -1 -1 -1 -1 -1 10 -1 -1 -1 -1 n 0 р q r s t u ٧ W Х у z -1 19 24 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1

index:
symbol:

next:										
	0	1	2	3	4	5	6	7	8	9
	1	а	s	S	e	s	\$	a	d	\$
	10	11	12	13	14	15	16	17	18	19
	m	р	1	e	m	e	n	t	\$	t
	20	21	22	23	24	25	26	27	28	29
	h	e	r	\$	r	i	n	t	f	\$

```
TEST #5
                                       Input simpleToy.lex
boolean checkRange(int n)
    // checks if n is in the range [0,100]
    if (n >= 0 \&\& n <= 100)
        return true;
    return false;
}
void main()
    // a weirdly named string
    string String = "Hello, world!";
    // This prints Hello, world!
    println(String);
    /* I'm not really sure what the purpose of this is */
    int i = 0;
    for (int i = 0; i < 200; i = i + 2)
        if (checkRange(i))
            printf("You are within range.");
        }
    }
}
                                              Output
boolean id leftparen int id rightparen
leftbrace
if leftparen id greaterequal intconstant and id lessequal intconstant rightparen
return booleanconstant semicolon
return booleanconstant semicolon
rightbrace
void id leftparen rightparen
leftbrace
string id assignop stringconstant semicolon
println leftparen id rightparen semicolon
int id assignop intconstant semicolon
```

for leftparen int id assignop intconstant semicolon id lessthan intconstant semicolon id assignop id add intconstant rightparen leftbrace

if leftparen id leftparen id rightparen rightparen leftbrace

leftbrac id leftp rightbra rightbra rightbra	aren ce ce	stringo	constan	t right	paren	semic	olon					
switch:												
A -1	B -1	C -1	D -1	E -1	F -1	G -1	H -1	I -1	J -1	K -1	L -1	M -1
N -1	0 -1	P -1	Q -1	R -1	S 55	T -1	U -1	V -1	W -1	X -1	Y -1	Z -1
a -1	b 0	c 7	d -1	e -1	f 36	g -1	h -1	i 17	j -1	k -1	1 -1	m 45
n 20	o -1	р 61	q -1	r 25	s 49	t 31	u -1	v 41	w -1	x -1	y -1	z -1
<pre>index: symbol: next:</pre>												
0		1	2	3		4	5	6		7	8	9
0	l	0	1	е		а	n	\$		h	е	С
10	1	11	12	13		14	15	16		17	18	19
k		R	a	n		g	e	\$		n	t	\$
								80		21		69
20		21 f	22	23		24	25	26		27	28	29
\$ 23		т 70	\$ 79	\$ 24		\$	е	t		u	r	n
30		31	32	33		34	35 #	36		37	38	39
\$ 35		r	u	е		\$	\$	a 71		1	S	е
40		41	42	43		44	45	46		47	48	49
\$		0	i	d		\$	а	i		n	\$	t
50		51	52	53		54	55	56		57	58	59
r		i	n	g		\$	t	r		i	n	g
60		61	62	63		64	65	66		67	68	69
\$ 68		r	i	n		t	1 82	n		\$	\$	\$ 74
70	١	71	72	73		74	75	76		77	78	79
\$ 75		0	r	\$		\$	\$ 76	\$ 77		\$ 78	\$ 81	\$
							, 0	, ,		70	01	
80 \$		81 \$	82 f	83 \$								

TEST #6

Note: I'm putting these in columns and making them small because it's a massive waste of paper

Input growTest.lex

LFwr sVbE 1UZH bmwW FHQr Vqms EYGH rgYe bGKF	Just s nmeYxN Ssqvbh HqHcyr NcUDdD prmxRw SFAZTM FCbnjl eBLHrn RKMvrt	litVm smHN culQP DaaRm offBI VrpY bqcW erxD xemE	DZ IYJ IYR IF IgR ITH IRS IRS	string	g s		vqTbM IHjda soWyS BvcuN sbXrv toOgl duNli NZeqM rTwkM	luIjyl MqXri BLqSi ILSzBI CECr: DEXhl MKTYI IJYdL(IAtqe	mjKSeA MLEjQm uMPIsO ufyyKD BgLtLr IgVXOY <dxxxp PivavZ CUTXOM FnYVFP KlmqMD</dxxxp 	Input	grov Out	WTest.l OOpsaY: hUMbYtF RpNHiVy byRbey: dVuGaqa vtTCIV: dncbVua QIgNKbS ykgdcxF MOLWgKi GdRixRU put id	JFQveQz RXCkbKs /tDsEIg JqINMOZ aARQiQI JqstaEq arAPHZD SBryGYp RueZKeo iGNzBsR	JE SG xY tV tR jI iT CH Ox				qMKj TGmy Lyeu EVdP ZFdI cMBa	qmAwGD sFRkcz WvNrNr VzMmxc JayqAJ JPVPvV WftcAq RAjAbn	oLISW hoVUh NbIfo KZAEd epdjT fjVJk	
id							id					id						id			
SW	itch A -1		В 150	C -1		D -1	E 90		F 60	G 465	H -1	I 180	J -1	k -1		L Ø	M 450				
	N 270		0 315	P -1		Q 420	R 345		S 135	T 510	U -1	V 75	W -1) -1		Y -1	555 555				
	a -1		b 45	480		d 255	- 1		f -1	g 585	h 330	i -1	j -1	k -1		1 30	m -1				
	n -1		0	p		q	r 105		S 1 F	t	u	V	W	>		у	Z				
	-1		-1	-1		495	105	•	15	240	-1	165	-1	-1	L 4	135	-1	_			
index	::		-1	-1		495	105	•	15	240	-1								117	110	110
symbo next:	:: 1: 0 F	1 w	-1 2 n	- 1	4 e	495 ⁵	105 6 ×	7 N	8 i	240 9 t	-1	110 H	111 r	112 n	113 e	114 r	115 X	116 D	117 k	118 M	119 \$
symbo next:	:: 1:	1	2	3	4	5 Y 15 V	6	7	8	9	-1	110 H 120 G 360	111 r 121 K	112 n 122 R	113 e 123 K	114 r 124 M	115 x 125 v	116 D 126 r	k 127 t	M 128 x	\$ 129 e
symbo next:	:: :1:	1 w	2 n	3 m	4 e	5 Y 15	6 x 16	7 N	8 i	9 t	-1	110 H 120 G 360 130 m	111 r 121 K	112 n 122 R 132 D	113 e 123 K	114 r 124 M	115 x 125 v	116 D 126 r 136 f	127 t	128 x 138 J	\$ 129 e
symbo	:: :1: 0 F 525 10 V	1 w 11 m	2 n 12 D	3 m 13 Z	4 e 14 \$	5 Y 15 V 195 25	6 x 16 b	7 N 17 B	8 i 18 s	9 t 19 q	-1	110 H 120 G 360 130	111 r 121 K	112 n 122 R	113 e 123 K	114 r 124 M	115 x 125 v	116 D 126 r	127 t	M 128 x	\$ 129 e
symbo	:: 1: 0 F 525 10 V	1 w 11 m 21 b	2 n 12 D	3 m 13 z 23 s 33	4 e 14 \$ 24 m	5 Y 15 V 195 25 H	6 x 16 b 26 N	7 N 17 B 27 Y	8 i 18 s 28 J 38	9 t 19 q 29 \$	-1	110 H 120 G 360 130 m	1111 r 121 K 131 E 141 v	112 n 122 R 132 D	113 e 123 K 133 y	114 r 124 M 134 \$	115 x 125 v 135 C	116 D 126 r 136 f	127 t 137 m	128 x 138 J	\$ 129 e 139 y 149 \$
symbo	:: :1: 0 F 525 10 V 20 V 30 U 300	1 w 11 m 21 b 31 z	2 n 12 D 22 h 32 H	3 m 13 Z 23 S	4 e 14 \$ 24 m 34 H	5 Y 15 V 195 25 H 35 c	6 x 16 b 26 N 36 y 46	7 N 17 B 27 Y 37 r	8 i 18 s 28 J 38 u	9 t 19 q 29 \$ 39 1	-1	110 H 120 G 360 130 m 140 f	1111 r 1211 K 1311 E 1411 v 1511 J	112 n 122 R 132 D	113 e 123 K 133 y 143 H	114 r 124 M 134 \$ 144 u	115 x 125 v 135 C 145 w 155 1	116 D 126 r 136 f 146 i	127 t 137 m 147 w	128 x 138 J 148 Y	\$ 129 e 139 y 149 \$ 159 j 169 u
symbo	:: 1: 0 F F 525 10 V 20 V 30 U 3000 40 Q 50	1 w 11 m 21 b 31 Z 41 P	2 n 12 D 22 h 32 H 42 V 52	3 m 13 z 23 s 33 q 43 R	4 e e 14 \$ 24 m 34 H	5 Y 15 V 195 25 H 35 c 45 m 120 55	6 x 16 b 26 N 36 y 46 w 56	7 N 17 B 27 Y 377 r 47 W 57	8 i 18 s 28 J 38 u 48 c	9 t 19 q 29 \$ 39 1	-1	110 H 120 G 360 130 m 140 f 150 t 210 160 K 170 I	1111 r 121 K 131 E 141 v 151 J 161 S	112 n 122 R 132 D 142 Q 152 C	113 e 123 K 133 y 143 H 153 v 163 A	114 r 124 M 134 \$ 144 u 154 F 164 \$ 174 L	115 x 125 v 135 C 145 w 155 1 165 q 390 175 E	116 D 126 r 136 f 146 i 156 S 166 T 176 j	127 t 137 m 147 w 157 i 167 b 177 Q 187	128 x 138 J 148 Y 158 m 168 M	\$ 129 e 139 y 149 \$ 159 j 169 u 179 \$
symbo	20 v 20 U 300 D 50 D	11 m 21 b 31 Z 41 P 51 d 61	2 n 12 D 22 h 32 H 42 V	3 m 13 Z 23 s 33 q 43 R	4 e 14 \$ 24 m 34 H 44 \$ 54 a 64	5 Y 15 V 195 25 H 35 c 45 m 120 55 R	6 x 16 b 26 N 36 y 46 w 56 m	7 N 17 B 27 Y 47 W 57 1	8 i 18 s 28 J 38 u 48 c 58 F	9 t 19 q 29 \$ 39 1 49 U	-1	110 H 120 G 360 360 130 m 140 f 150 t 210 160 K 170 I	1111 r 121 K 131 E 141 v 151 J 161 S 171 j 181 j	112 n 122 R 132 D 142 Q 152 C	113 e 123 K 133 y 143 H 153 v 163 A	114 r 124 M 134 \$ 144 u 154 F 164 \$ 174 L	115 x 125 v 135 C 145 w 155 1 165 q 390 175 E 185 q	1166 D 126 r 136 f 1466 i 156 S 1666 T 176 j 1866 X	127 t 137 m 147 w 157 i 167 b 177 Q 187 r 197	128 x 138 J 148 Y 158 m 168 M 178 m 188 U 198	\$ 129 e 139 y 149 \$ 159 j 169 u 179 \$ 189 M
symbo	:::11: 0	11 w 11 m 21 b 31 z 2 41 p 61 d 61 Q 71	2 n 12 D 22 h 32 H 42 V 52 D 62 p 72	3 m 13 Z 23 s 33 q 43 R 53 a	4 e e 14 \$ 24 m 34 H 44 \$ 54 a 64 m 74	5 Y 15 V 195 25 H 35 c 45 m 120 55 R	6 x 16 b 26 N 36 y 46 w 56 m 66 R	7 N 17 B 27 Y 37 r 47 W 57 1 67 w 77	8 i 18 s 28 J 38 u 48 c 58 F	9 t 19 q 29 \$ 39 1 49 U 59 \$	-1	110 H 120 G 360 130 m 140 f 150 t 210 160 K 170 I	1111 r 121 K 131 E 141 v 151 J 161 S 171 j 181 j 191 I	112 n 122 R 132 D 142 Q 152 C 162 e 172 y 182 d 192 s	1133 e 123 K 133 y 143 H 153 v 163 A 173 M 183 a	114 r 124 M 134 \$ 144 u 154 F 164 \$ 174 L 184 M	115 x 125 v 135 C 145 w 155 1 165 q 390 175 E	116 D 126 r 136 f 146 i 156 S 166 T 176 j 186 X	127 t 137 m 147 w 157 i 167 b 177 Q 187 r 197 y 207	128 x x 138 J 148 Y 158 m 168 M 178 m 188 u 198 S 208	\$ 129 e 139 y 149 \$ 159 j 169 u 179 \$ 189 M 199 B
symbo	:::11: 0	11 m 21 b 31 z 41 P 51 d 61 Q 71 I 81	2 n 12 D 22 h 32 H 42 V 52 D 62 p 72 g 8 82	3 m 13 Z 23 s 33 q 43 R 53 a 63 r 73 R	4 e e 14 \$ 24 m 34 H 44 \$ 54 a 64 m 74 \$	5 Y 15 V 195 25 H 35 C 45 m 120 55 R 65 x 75 q	6 x 16 b 26 N 36 y 46 w 56 m 666 R 76 m	7 N 17 B 27 Y 47 W 57 1 67 W 77 s 87	8 i 18 s 28 J 38 u 48 c 58 F 68 f	9 t 19 q 29 \$ 39 1 49 U 59 \$ 69 f 79 A	-1	110 H 120 G 360 130 m 140 f 150 t 210 160 K 170 I	1111 r 121 K 131 E 141 v 151 J 161 S 171 j 181 j	112 n 122 R 132 D 142 Q 152 C 162 e 172 y 182 d	113 e 123 K 133 y 143 H 153 v 163 A 173 M 183 a	114 r 124 M 134 \$ 144 u 154 F 164 \$ 174 L 184 M	115 x 125 v 135 C 145 w 155 1 165 q 390 175 E	1166 D 126 r 136 f 146 i 156 S 166 T 176 j 186 X	127 t 137 m 147 w 157 i 167 b 177 Q 187 r	128 x 138 J 148 Y 158 m 168 M 178 m 188 u	\$ 129 e 139 y 149 \$ 159 j 169 u 179 \$ 189 M

L	t	L	r	\$	b	х	r	v	С										
230	231	232	233	234	235	236	237	238	239	420	421	422	423	424	425	426	427	428	429
E	C	r	I	g	V	X	0	Y		I	g	N	K	b	S	B	r	y	G
240	241	242	243	244	245	246	247	248	249	430	431	432	433	434	435	436	437	438	439
0	0	g	1	D	E	X	h	k	d	Y	p	i	T	\$	k	g	d	c	x
250	251	252	253	254	255	256	257	258	259	440	441	442	443	444	445	446	447	448	449
X	X	x	P	\$	u	N	1	i	m	R	u	e	Z	K	e	0	C	H	\$
260 K	261 T	262 Y	263 P	264 i	375 265 v	266 a	267 V	268 Z	269 \$	450 0	451 L	452 W	453 g	454 K	455 i	456 G	457 N	458 z	459 B
270	271	272	273	274	275	276	277	278	279	460	461	462	463	464	465	466	467	468	469
Z	e	q	M	J	Y	d	L	C	U	s	R	0	x	\$	d	R	i	x	R
280	281	282	283	284	285	286	287	288	289	470	471	472	473	474	475	476	477	478	479
T	X	0	M		T	w	k	M	A	U	I	0	G	L	m	S	p	P	\$
290 t	291 q	292 e	293 f	294 n	295 Y	296 V	297 F	298 P	299	480 x 570	481 K	482 u	483 q	484 m	485 A	486 W	487 G	488 D	489 g
300	301	302	303	304	305	306	307	308	309	490	491	492	493	494	495	496	497	498	499
p	U	D	p	N	m	N	k	X	1	t	0	B	B	\$	M	K	j	s	F
310	311	312	313	314	315	316	317	318	319	500	501	502	503	504	505	506	507	508	509
m	q	M	D	\$	0	p	s	a	Y	R	k	c	z	o	L	I	S	W	\$
320	321	322	323	324	325	326	327	328	329	510	511	512	513	514	515	516	517	518	519
J	F	Q	V	e	Q	z	z	S	\$	G	m	y	W	v	N	r	N	r	h
330	331	332	333	334	335	336	337	338	339	520	521	522	523	524	525	526	527	528	529
U	M	b	Y	t	R	X	C	k	b	o	V	U	h	\$	y	e	u	V	z
340	341	342	343	344	345	346	347	348	349	530	531	532	533	534	535	536	537	538	539
K	s	J	E		p	N	H	i	V	M	m	x	c	N	b	I	f	0	\$
350	351	352	353	354	355	356	357	358	359	540	541	542	543	544	545	546	547	548	549
y	t	D	s	E	I	g	S	G	\$	V	d	P	J	a	y	q	A	J	K
360	361	362	363	364	365 J	366	367	368	369 M	550 Z	551 A	552 E	553 d	554 \$	555 F	556 d	557 I	558 J	559 P
у 370	R 371	b 372	e 373	y 374	375	q 376	377	N 378	379	560 V	561 P	562 v	563 V	564 e	565 p	566 d	567 j	568 T	569 \$
380	Z 381	x 382	Y 383	\$	V 405 385	u 386	G 387	a 388	q 389	570 M	571 B	572 a	573 W	574 f	575 t	576 c	577 A	578 q	579 f
а	А	R	Q	i	Q	I	t	V	\$	580	581	582	583	584	585	586	587	588	589
390 t	391 T	392 C	393 I	394 v	395 J	396 q	397 s	398 t	399 a	j	٧	J	k	\$	p	b	r	R	Α
400	401	402	403	404	405	406	407	408	409	590	591	592	593	594	595	596	597	598	599
E	q	t	R	\$	n	c	b	V	u	j	A	b	n	V	E	g	B	E	\$
410 a	411 r	412 A	413 P	414 H	415 Z	416 D	417 j	418 I	419 \$										

TEST #7 Input bad.lex

// This should output id mult id leftbracket id comma comma id

fwoie*fiowejfosdp[fjwe0c,,cowo

Output

id mult id leftbracket id comma comma id

switch:

Α	В	С	D	Е	F	G	Н	I	J	K	L	М
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
N	0	Р	Q	R	S	T	U	V	W	Х	Υ	Z
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
a	b	С	d	е	f	g	h	i	j	k	1	m
-1	-1	22	-1	e -1	0	-1	-1	-1	-1	-1	-1	-1
n	О	р	q	r	s	t	u	V	W	х	У	z

```
index:
symbol:
next:
       0
                1
                         2
                                  3
                                           4
                                                    5
                                                             6
                                                                               8
                                                                                        9
                                                                      7
                         i
                                           $
                                                    i
                                                                                        j
       W
                0
                                                             0
                                                                               e
       5
                                                   16
      10
               11
                        12
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                                          14
                                                   15
                                                            16
                                                                     17
                                                                              18
                                                                                       19
       f
                                                    $
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                                  d
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                0
                         s
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                                           р
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      20
                        22
                                                   25
               21
                                          24
       С
                $
                         0
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                                                    $
                                                  TEST #8
                                           Input simpleIDs.lex
/* These are examples we did in class. */
awt awthave
cry
an
and
am
awtha
                                                   Output
id id
id
id
id
id
id
switch:
            В
                  C
                         D
                                Ε
                                      F
                                             G
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                                                           Ι
                                                                        K
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     Α
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    -1
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            b
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                                                           i
                                                                               1
     а
                   c
                         d
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                                                    h
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                                                                        k
                                                                                     m
                                             g
                   8
                        -1
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index:
symbol:
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                                                                               r
                                                                                        У
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                                                                     17
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                         $
                                  d
                                           $
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                                                                      $
                n
                                                    m
               15
                        13
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