

sample01      $a^2$

```
C:\Users\climber\Downloads\编译原理>translator sample01.txt

-----Lexical Analysis-----

< $, $ >
< id, a >
< ^, ^ >
< {, { >
< num, 2 >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected


-----Syntax Analysis -----

S-->$BF$
B-->id
F-->^{BF}F
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error dected
请按任意键继续. . .
```



$$a^2$$

sample02       $a_{c2}^b$

```
C:\Users\climber\Downloads\编译原理>translator sample02.txt
```

```
-----Lexical Analysis-----
```

```
< $, $ >  
< id, a >  
< _ , ' >  
< { , { >  
< id, c2 >  
< } , } >  
< { , { >  
< id, b >  
< } , } >  
< $, $ >
```

Lexical Analysis finishes with no error detected

```
-----Syntax Analysis -----
```

```
S-->$BF$  
B-->id  
F-->_ {BF} {BF} F  
B-->id  
F-->  
B-->id  
F-->  
F-->
```

Syntax Analysis finishes with no error detected

```
-----Translate to html -----
```

Translation finishes with no error detected  
请按任意键继续. . .



sample03     \$a\_{2}\$

```
C:\Users\climber\Downloads\编译原理>translator sample03.txt

-----Lexical Analysis-----

< $, $ >
< id, a >
< ' , ' >
< {, { >
< num, 2 >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->id
F-->_{BF}F
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error detected
请按任意键继续. . .
```



$a_2$

sample04      \$h\sum\{a\}\{b\}\{c\}\$

```
C:\Users\climber\Downloads\编译原理>translator
请输入句子 (以ctrl+z结束)
$h\sum\{a\}\{b\}\{c\}$
^Z

-----Lexical Analysis-----

< $, $ >
< id, h >
< \sum, \sum >
< {, { >
< id, a >
< }, } >
< {, { >
< id, b >
< }, } >
< {, { >
< id, c >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->id
F-->BF
B-->\sum\{BF\}\{BF\}\{BF\}
B-->id
F-->
B-->id
F-->
B-->id
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error detected
```



$$h \sum_a^b c$$

sample05      \$(this IS 512)\$

```
C:\Users\climber\Downloads\编译原理>translator sample05.txt

-----Lexical Analysis-----

< $,$ >
< (,( >
< id,this >
< id,IS >
< num,512 >
< ),) >
< $,$ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->(BF)
B-->id
F-->BF
B-->id
F-->BF
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error detected
请按任意键继续. . .
```



( *this*    *IS* 512 )

sample06       $\sum \{a^2\} \{b^2\} \{(c \int_1^2 dt)\}$

```
C:\Users\climber\Downloads\编译原理>translator sample06.txt
```

```
-----Lexical Analysis-----
```

```
< $, $ >
< \sum, \sum >
< {, { >
< id, a >
< ', ' >
< {, { >
< num, 2 >
< }, } >
< }, } >
< {, { >
< id, b >
< ', ' >
< {, { >
< num, 2 >
< }, } >
< }, } >
< {, { >
< (, ( >
< id, c >
< \int, \int >
< {, { >
< num, 1 >
< }, } >
< {, { >
< num, 2 >
< }, } >
< {, { >
< id, dt >
< }, } >
< ), ) >
< }, } >
< $, $ >
```


```
Lexical Analysis finishes with no error detected
```

```
-----Syntax Analysis -----
S-->$BF$
B-->\sum {BF} {BF} {BF}
B-->id
F-->^ {BF} F
B-->num
F-->
F-->
B-->id
F-->^ {BF} F
B-->num
F-->
F-->
B-->(BF)
B-->id
F-->BF
B-->\int {BF} {BF} {BF}
B-->num
F-->
B-->num
F-->
B-->id
F-->
F-->
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error dected
请按任意键继续. . .
```



$$h \sum_a^b c$$

test01     \$154^{5}\$

```
C:\Users\climber\Downloads\编译原理>translator test01.txt

-----Lexical Analysis-----

< $, $ >
< num, 154 >
< ^, ^ >
< {, { >
< num, 5 >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected


-----Syntax Analysis -----

S-->$BF$
B-->num
F-->^{BF}F
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error dected
请按任意键继续. . .
```



154<sup>5</sup>



test02     \$ph\_{3}\$

```
C:\Users\climber\Downloads\编译原理>translator test02.txt

-----Lexical Analysis-----

< $, $ >
< id, ph >
< ' ' >
< {, { >
< num, 3 >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected

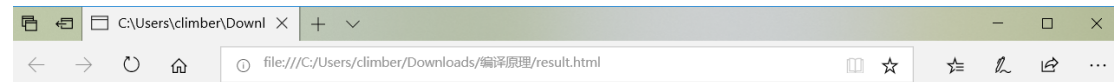
-----Syntax Analysis -----

S-->$BF$
B-->id
F-->_{BF}F
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error dected
请按任意键继续. . .
```

A screenshot of a web browser window. The address bar shows the file path: file:///C:/Users/climber/Downloads/编译原理/result.html. The browser interface includes standard navigation buttons (back, forward, refresh, home) and a tab bar with one active tab titled 'C:\Users\climber\Downl X'.

$ph_3$

test03      $n_{10}^4$

```
C:\Users\climber\Downloads\编译原理>translator test03.txt

-----Lexical Analysis-----

< $, $ >
< id, n_ >
< _, ' >
< {, { >
< num, 10 >
< }, } >
< {, { >
< num, 4 >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->id
F-->_ {BF} {BF} F
B-->num
F-->
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error detected
请按任意键继续. . .
```

$$n_{10}^4$$

test04      $a^{b^{c^2}d}e$

```
C:\Users\climber\Downloads\编译原理>translator test04.txt

-----Lexical Analysis-----

< $, $ >
< id, a >
< , >
< {, { >
< id, b >
< , >
< {, { >
< id, c >
< , >
< {, { >
< num, 2 >
< }, } >
< }, } >
< id, d >
< }, } >
< id, e >
< $, $ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->id
F-->^(BF)F
B-->id
F-->^(BF)F
B-->id
F-->^(BF)F
B-->num
F-->
F-->
F-->BF
B-->id
F-->
F-->BF
B-->id
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error detected
请按任意键继续. . .
```



$$a^{b^{c^2}d}e$$

test05      $\sum a^2 b^{2^k} (c \int_1^2 dt)$

```
C:\Users\climber\Downloads\编译原理>translator test05.txt
```

```
-----Lexical Analysis-----
```

```
< $, $ >
< \sum, \sum >
< {, { >
< id, a >
< ^, ^ >
< {, { >
< num, 2 >
< }, } >
< }, } >
< {, { >
< id, b >
< ^, ^ >
< {, { >
< num, 2 >
< ^, ^ >
< {, { >
< id, k >
< }, } >
< }, } >
< }, } >
< {, { >
< (, ( >
< id, c >
< \int, \int >
< {, { >
< num, 1 >
< }, } >
< {, { >
< num, 2 >
< }, } >
< {, { >
< id, dt >
< }, } >
< ), ) >
< }, } >
< $, $ >
```

```
Lexical Analysis finishes with no error detected
```

```
-----Syntax Analysis -----  
  
S-->$BF$  
B-->\sum{BF} {BF} {BF}  
B-->id  
F-->^{BF} F  
B-->num  
F-->  
F-->  
B-->id  
F-->^{BF} F  
B-->num  
F-->^{BF} F  
B-->id  
F-->  
F-->  
F-->  
B-->(BF)  
B-->id  
F-->BF  
B-->\int{BF} {BF} {BF}  
B-->num  
F-->  
B-->num  
F-->  
B-->id  
F-->  
F-->  
F-->  
F-->  
  
Syntax Analysis finishes with no error detected  
  
-----Translate to html -----  
  
Translation finishes with no error dected  
请按任意键继续. . .
```



$$h \sum_a^b c$$

test06     \$test1 test2\blank test3\$

```
C:\Users\climber\Downloads\编译原理>translator test06.txt

-----Lexical Analysis-----

< $,$ >
< id,test1 >
< id,test2 >
< blank,\blank >
< id,test3 >
< $,$ >

Lexical Analysis finishes with no error detected


-----Syntax Analysis -----

S-->$BF$
B-->id
F-->BF
B-->id
F-->BF
B-->\blank
F-->BF
B-->id
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error dected
请按任意键继续. . .
```



*test1     test2     test3*

test07     \$(a\_{4})^{\wedge\{2\}}\$

```
C:\Users\climber\Downloads\编译原理>translator test07.txt

-----Lexical Analysis-----

< $, $ >
< (, ( >
< id, a >
< ', ' >
< {, { >
< num, 4 >
< }, } >
< ), ) >
< ^, ^ >
< {, { >
< num, 2 >
< }, } >
< $, $ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->(BF)
B-->id
F-->_{BF}F
B-->num
F-->
F-->
F-->^{BF}F
B-->num
F-->
F-->

Syntax Analysis finishes with no error detected

-----Translate to html -----

Translation finishes with no error dected
请按任意键继续. . .
```



$$(a_4)^2$$



test08      $\{a_{4}\}^2$

```
C:\Users\climber\Downloads\编译原理>translator test08.txt
```

```
-----Lexical Analysis-----
```

```
< $, $ >
< {, { >
< id, a >
< ' >
< [, [ >
< num, 4 >
< }, } >
< ], ] >
< ' >
< {, { >
< num, 2 >
< }, } >
< $, $ >
```

```
Lexical Analysis finishes with no error detected
```

```
-----Syntax Analysis -----
```

```
S-->$BF$
```

```
    ${
```

```
Syntax error: expect id,num,\blank, (, \int or \sum while input is {
```

```
-----
Translation stops unexpectedly due to unknown grammar production
```

test09     \$a^{b^{c^2}d}\$

```
C:\Users\climber\Downloads\编译原理>translator test09.txt
```

```
-----Lexical Analysis-----
```

```
< $, $ >
< id, a >
< , >
< {, { >
< id, b >
< , >
< {, { >
< id, c >
< , >
< {, { >
< num, 2 >
< }, } >
< id, d >
< }, } >
< $, $ >
```

Lexical Analysis finishes with no error detected

```
-----Syntax Analysis -----
```

```
S-->$BF$
B-->id
F-->~{BF}F
B-->id
F-->~{BF}F
B-->id
F-->~{BF}F
B-->num
F-->
F-->BF
B-->id
F-->
F-->
```

```
    }$
```

Syntax error: expect } while input is \$

```
-----
Translation stops unexpectedly due to mismatch of symbols
```

test10      $a^{b^{c^{2.1}}d}$

```
C:\Users\climber\Downloads\编译原理>translator test10.txt

-----Lexical Analysis-----

< $,$ >
< id,a >
< ' >
< {,{ >
< id,b >
< ' >
< {,{ >
< id,c >
< ' >
< {,{ >
< num,2 >

      $a^{b^{c^{2.
Lexical error: invalid token,unknown symbol . detected,please check your input

-----
Translation stops unexpectedly due to unknown symbol detected
```

test11      $a^{su}\int_1^{ie}u^{83}$

```
C:\Users\climber\Downloads\编译原理\李卫海版\实验\mine>translator
请输入句子（以ctrl+Z结束）
$a^{su}\int_1^{ie}u^{83}
Z

-----Lexical Analysis-----

< $,$ >
< id,a >
< ' >
< {,{ >
< id,su >
< },} >

      \im
Lexical error: invalid token,maybe you spell int wrongly,try to change m to n

-----
Translation stops unexpectedly due to spell error detected
```

test12      $a^{\{su\}\int\{1\}\{ie\}^{83}u\$}$

```
C:\Users\climber\Downloads\编译原理\李卫海版\实验\mine>translator
请输入句子 (以ctrl+Z结束)
a {su}\int{1}{ie}{83}u$
^Z

-----Lexical Analysis-----

< id, a >
< ^, ^ >
< {, { >
< id, su >
< }, } >
< \int, \int >
< {, { >
< num, 1 >
< }, } >
< {, { >
< id, ie >
< }, } >
< {, { >
< num, 83 >
< }, } >
< id, u >
< $, $ >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

      a
Syntax error: missing a $ at the beginning, the sentence must begin with a $

-----

Translation stops unexpectedly due to unknown grammar production
```

test13     \$a^{su}\int\{\ie\}^{83}u

```
C:\Users\climber\Downloads\编译原理\李卫海版\实验\mine>translator
请输入句子 (以ctrl+Z结束)
$a^{su}\int\{1\}\{ie\}\{83\}
^Z

-----Lexical Analysis-----

< $, $ >
< id, a >
< ^, ^ >
< {, { >
< id, su >
< }, } >
< \int, \int >
< {, { >
< num, 1 >
< }, } >
< {, { >
< id, ie >
< }, } >
< {, { >
< num, 83 >
< }, } >

Lexical Analysis finishes with no error detected

-----Syntax Analysis -----

S-->$BF$
B-->id
F-->^ {BF} F
B-->id
F-->
F-->BF
B-->\int {BF} {BF} {BF}
B-->num
F-->
B-->id
F-->
B-->num
F-->
F-->

    }
Syntax error: missing a $ at the end, the sentence must end with a $

-----

Translation stops unexpectedly due to mismatch of symbols
```

test14

$\sum_y \{x\} (g_{welcome}^i)^{a_2^7} z_{to} y_{sist}^k (h_{sec}^{ik} g_{nki}^{ustc})^2 \int a_i^t 2^x W(\sum_n \{l_i^2\} x^{4l})^{2i} dt$

```
C:\Users\climber\Downloads\编译原理\李卫海版\实验\mine>translator
请输入句子 (以ert1+2结束)
$2_{-}(\sum(y)\{x\}\{g_{-}\{welcome\}\{i\}\}^{a_{-}\{2\}\{7\}\}z_{-}\{to\}y_{-}\{sist\}\{k\}\{h_{-}\{sec\}\{ik\}g_{-}\{nki\}\{ustc\}\}^{2}\}\{\int\{a_{-}\{i\}\{t\}\}\{2^{x}\}\}\{W(\sum\{n\}\{l_{-}\{i^{2}\}\}\{x^{4l}\}\}\{2i\}dt)\}\$

-----Lexical Analysis-----
3.$ >
num.2 >
T.[ >
\sum.\sum >
l.[ >
id.y >
l.[ >
id.x >
l.[ >
id.g >
T.[ >
id.welcome >
l.[ >
id.l >
l.[ >
id.a >
T.[ >
num.2 >
l.[ >
num.7 >
l.[ >
id.z >
T.[ >
id.to >
l.[ >
id.y >
T.[ >
id.sist >
```

$$2 \int_{a_i^t}^{2^x} W(\sum_n \{x^{4l}\})^{2i} dt$$

$$\sum_y^x (g_{welcome}^i)^{a_2^7} z_{to} y_{sist}^k (h_{sec}^{ik} g_{nki}^{ustc})^2$$