AIM: Recursive Descendent parser.

GRAMMAR:

E-> TE'
E'-> +TE' | -TE' | ^
T-> FT'
T'-> *FT' | /FT' | ^
F-> id | num | (E)

Output:

```
~$ g++ rdp.cpp
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a+a+a
String Accepted

Enter the String: a*a*a
String Accepted

Enter the String: a+a*a
String Accepted

Enter the String: a+a/a*a/a*a/a*a
String Accepted

Enter the String: a-a-b
String Accepted

Enter the String: c-s*v*v*v
String Accepted

Enter the String: a-b/b/b*c*c
String Accepted
```

```
Enter the String: a+2/5*5
String Accepted

Enter the String: 5-5-5-5-5+5
String Accepted

Enter the String: 1/2*3-4+5/6+7
String Accepted
```

```
~$ g++ rdp.cpp
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a++a
String Rejected

~$ g++ rdp.cpp
~$ g++ rdp.cpp
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a++a
String Rejected
```

```
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a-a-
String Rejected
```

```
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a*a-/
String Rejected

~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a+*a
String Rejected
```

```
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a*a/a/a/a=a
String Rejected

Enter the String: a+ab+b+f*f-f/k
String Rejected

Enter the String: a=a-a
String Rejected

Enter the String: s+s-d/*fgh/*k
String Rejected
```

```
~$ ./a.out

GRAMMAR:
E-> TE'
E'-> +TE'|-TE'|^
T-> FT'
T'-> *FT'|/FT'|^
F-> id|num|(E)

Enter the String: a*a*a
String Accepted

Enter the String: a+a/a*a-a
String Accepted

Enter the String: a+a-a/a/a/a*a
String Accepted

Enter the String: a-a/a/a
String Accepted

Enter the String: a+a-a///a*a
String Rejected
```

```
Enter the String: d+d-d*d/d
String Accepted

Enter the String: d+d+d+d-d-d/d*d/d*d
String Accepted

Enter the String: m*m*m/m/m/m+m+m+m
String Accepted

Enter the String: d/d-d*d+d/d-d*d
String Accepted
```