Code

#include <stdio.h>

#include <ctype.h>

const char \*s;

int i;

char peek() { return s[i]; }

int eat(char c){ if(peek()==c){ i++; return 1; } return 0; }

int expr();

int number() {

int val = 0;

while(isdigit(peek())) {

val = val\*10 + (s[i]-'0');

i++;

}

return val;

}

int factor() {

if(eat('(')) {

int val = expr();

eat(')');

return val;

}

return number();

}

int term() {

int val = factor();

while(peek()=='\*' || peek()=='/') {

if(eat('\*')) val \*= factor();

else if(eat('/')) val /= factor();

}

return val;

}

int expr() {

int val = term();

while(peek()=='+' || peek()=='-') {

if(eat('+')) val += term();

else if(eat('-')) val -= term();

}

return val;

}

int evaluate(const char \*str) {

s = str; i = 0;

return expr();

}

int main() {

const char \*tests[] = {

"2+3\*4",

"(2+3)\*4",

"10-2\*3",

"100/(5+5)",

"8+6/2\*3",

NULL

};

for(int j=0; tests[j]; j++)

printf("%s = %d\n", tests[j], evaluate(tests[j]));

return 0;

}

SCREENSHOTS

