

```

#include <stdio.h>
#include <winsock2.h>

#define PORT_NUM 3800

struct cal_data
{
    int left_num;
    int right_num;
    char op;
    int result;
    short int error;
};

int main(int argc, char **argv)
{
    SOCKET sockfd;
    int addrlen;
    int cal_result;
    int left_num, right_num;
    struct sockaddr_in addr, cliaddr;
    struct cal_data rdata;

    WSADATA wsaData;

    if(WSAStartup(MAKEWORD(2,2), &wsaData) != NO_ERROR)
    {
        return 1;
    }

    if( (sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1 )
    {
        return 1;
    }

    memset((void *)&addr, 0x00, sizeof(addr));
    addr.sin_family = AF_INET;
    addr.sin_addr.s_addr = htonl(INADDR_ANY);
    addr.sin_port = htons(PORT_NUM);

    addrlen = sizeof(addr);
    if (bind(sockfd, (struct sockaddr *)&addr, addrlen) == -1)
    {
        return 1;
    }

    while(1)

```

```

{
    addrlen = sizeof(cliaddr);
    recvfrom(sockfd, (char *)&rdata, sizeof(rdata), 0, (struct sockaddr
*)&cliaddr, &addrlen);
    #if DEBUG
        printf("Info : %s (%d)\n", inet_ntoa(cliaddr.sin_addr),
ntohs(cliaddr.sin_port));
        printf("%d %c %d\n", ntohl(rdata.left_num), rdata.op,
ntohl(rdata.right_num));
    #endif

    left_num = ntohl(rdata.left_num);
    right_num = ntohl(rdata.right_num);
    switch(rdata.op)
    {
        case '+':
            cal_result = left_num + right_num;
            break;
        case '-':
            cal_result = left_num - right_num;
            break;
        case '*':
            cal_result = left_num * right_num;
            break;
        case '/':
            if(right_num == 0)
            {
                rdata.error = htons(2);
                break;
            }
            cal_result = left_num / right_num;
            break;
    }

    rdata.result = htonl(cal_result);
    sendto(sockfd, (char *)&rdata, sizeof(rdata), 0,
(struct sockaddr *)&cliaddr, addrlen);
}
closesocket(sockfd);
WSACleanup( );
return 0;
}

```