

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    double * n = new(std :: nothrow) double ; // memory allocation
```

```
    double * n2 = new (std :: nothrow) double;
```

```
    char c;
```

```
    char q;
```

```
    cout << "        Calculator"<<endl;
```

```
    do
```

```
    {
```

```
        cout << " you can use operations: +, -, *, /"<<endl;
```

```
        cin >> *n;
```

```
        cin >> c;
```

```
        cin >> *n2;
```

```
        if(cin.fail()) // if user input isn't digit
```

```
        {
```

```
            cout << "You should enter digits!."<<endl;
```

```
        }
```

```
        else if(c == '+')
```

```
        {
```

```
            cout<< "result is " << *n+*n2 << endl;
```

```
        }
```

```
        else if(c == '-')
```

```

{
    cout<< "result is " << *n-*n2 << endl;

}
else if(c == '*')
{
    cout<< "result is " << *n * *n2 << endl;

}
else if(c == '/')
{
    if(*n2 == 0) // in case of dividing by 0
    {
        cout << "SYNTAX ERROR"<< endl;

    }
    else
    {
        cout<< "result is " << *n / *n2 << endl;

    }

}

cout << "Press any key to continue,to quit press q." << endl;
cin >> q;
delete n; //clear
delete n2;
}while(q != 'q');

```

```
return 0;
```

```
}
```