

```
#include <iostream>

#include <algorithm>

#include <unordered_set>

#include <string>

using namespace std;

int main()

{

    cout << "SHRAVAN PURWAR" << endl;

    cout << 1816110196 << endl;

    string s;

    getline(cin, s);

    int n = s.size();

    unordered_set<int> st;

    // For +

    st.insert(43);

    //For -

    st.insert(45);

    //For *

    st.insert(42);

    //For /

    st.insert(47);

    //For =
```

```

st.insert(61); //=

//Initialisation

int opr = 0, cons = 0, var = 0, i = 0;

while (i < n)
{
    if (int(s[i]) >= 48 && int(s[i]) <= 57)
    {
        cons++;

        while (i < n && int(s[i]) >= 48 && int(s[i]) <= 57)

            i++;
    }

    else if ((int(s[i]) >= 65 && int(s[i]) <= 90) || (int(s[i]) >= 97 && int(s[i]) <= 122))
    {
        var++;

        while (i < n && ((int(s[i]) >= 65 && int(s[i]) <= 90) || (int(s[i]) >= 97 && int(s[i]) <= 122) ||
(int(s[i]) >= 48 && int(s[i]) <= 57)))
        {
            i++;
        }
    }

    else if (st.find(int(s[i])) != st.end())

```

```

        {
            opr++;
            i++;
        }
        else if (int(s[i]) == 32)
        {
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#include <unordered_set>

#include <string>

using namespace std;

int main()
{

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    cout << 1816110196 << endl;

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    int n = s.size();

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    // For +

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//Initialisation

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        var++;

        while (i < n && ((int(s[i]) >= 65 && int(s[i]) <= 90) || (int(s[i]) >= 97 && int(s[i]) <= 122) ||
(int(s[i]) >= 48 && int(s[i]) <= 57)))

```

```

        {
            i++;
        }
    }

    else if (st.find(int(s[i])) != st.end())
    {
        opr++;
        i++;
    }
    else if (int(s[i]) == 32)
    {

        i++;
    }
}

cout << "There are " << endl
    << opr << " operators, " << endl
    << cons << " Constants" << endl
    << var << " Variables" << endl;
}    i++;

}

}

cout << "There are " << endl

```

```
<< opr << " operators, " << endl
```

```
<< cons << " Constants" << endl
```

```
<< var << " Variables" << endl;
```

```
}
```

```
9 include <iostream>
10 include <algorithm>
11 include <unordered_set>
12 include <string>
13 using namespace std;
14 int main()
15 {
16
17     cout << "SHRAVAN PURWAR" << endl;
18     cout << 1816110196 << endl;
19
20     string s;
21     getline(cin, s);
22     int n = s.size();
23 }
```

input

```
SHRAVAN PURWAR
1816110196
2x+8y=100
There are
2 operators,
3 Constants
2 Variables

...Program finished with exit code 0
Press ENTER to exit console.
```