

```

1  /*
2   * File: Truth Table .cpp
3   * Author: Kevin Morris
4   * Created on July 08, 2022, 10:10 AM
5   * Purpose: Truth Table
6   */
7  //System Libraries
8  #include <iostream>
9  using namespace std;
10 //User Libraries
11 //Global Constants
12 //Mathematical/Physics/Conversions, Higher dimensioned arrays
13 //Function Prototypes
14 //Execution Begins Here
15 int main(int argc, char** argv) {
16     // Initialize the Random Number Seed
17     //Declare Variables
18     bool x,y;//Boolean statements represented in the Table
19     //Initialize Variables
20     cout<<"X Y !X !Y X&&Y X||Y X^Y X^Y^X X^Y^Y !X&&!Y"
21     <<"! (X||Y) !X||!Y !(X&&Y)" <<endl;
22     //Map inputs to outputs-> The Process
23     //Display Results
24     x=y=true;//1st Row of the Truth Table
25     cout<<(x?'T':'F')<<" ";
26     cout<<(y?'T':'F')<<" ";
27     cout<<(!x?'T':'F')<<" ";
28     cout<<(!y?'T':'F')<<" ";
29     cout<<(x&&y?'T':'F')<<" ";
30     cout<<(x||y?'T':'F')<<" ";
31     cout<<(x^y?'T':'F')<<" ";
32     cout<<(x^y^x?'T':'F')<<" ";
33     cout<<(x^y^y?'T':'F')<<" ";
34     cout<<(! (x&&y) ?'T':'F')<<" ";
35     cout<<(!x||!y?'T':'F')<<" ";
36     cout<<(! (x||y) ?'T':'F')<<" ";
37     cout<<(!x&&!y?'T':'F')<<" ";
38     cout<<endl;
39     y=false;//2nd Row of the Truth Table
40     cout<<(x?'T':'F')<<" ";
41     cout<<(y?'T':'F')<<" ";
42     cout<<(!x?'T':'F')<<" ";
43     cout<<(!y?'T':'F')<<" ";
44     cout<<(x&&y?'T':'F')<<" ";
45     cout<<(x||y?'T':'F')<<" ";
46     cout<<(x^y?'T':'F')<<" ";
47     cout<<(x^y^x?'T':'F')<<" ";
48     cout<<(x^y^y?'T':'F')<<" ";
49     cout<<(! (x&&y) ?'T':'F')<<" ";

```

Files

- CPPTemplate
- Gaddis_9thEd_Chap4
- Gaddis_9thEd_Chap4
- Gaddis_9thEd_Chap4
- Gaddis_9thEd_Chap4
- Gaddis_9thEd_Chap4
- Savitch_9thEd_Chap3
- Savitch_9thEd_Chap3
- Savitch_9thEd_Chap3
- Truth_Table
 - Header Files
 - Resource Files
 - Source Files
 - Truth_Table.cpp
 - Test Files
 - Important Files

main(int argc, char** argv)

```

48 cout<<(x^y^y?'T':'F')<<" ";
49 cout<<(!(x&&Y)?'T':'F')<<" ";
50 cout<<(!x||!y?'T':'F')<<" ";
51 cout<<(!(x||y)?'T':'F')<<" ";
52 cout<<(!x&&!y?'T':'F')<<" ";
53 cout<<endl;
54 y=true;//3rd Row of the Truth Table
55 x=false;
56 cout<<(x?'T':'F')<<" ";
57 cout<<(y?'T':'F')<<" ";
58 cout<<(!x?'T':'F')<<" ";
59 cout<<(!y?'T':'F')<<" ";
60 cout<<(x&&y?'T':'F')<<" ";
61 cout<<(x||y?'T':'F')<<" ";
62 cout<<(x^y?'T':'F')<<" ";
63 cout<<(x^y^x?'T':'F')<<" ";
64 cout<<(x^y^y?'T':'F')<<" ";
65 cout<<(!(x&&y)?'T':'F')<<" ";
66 cout<<(!x||!y?'T':'F')<<" ";
67 cout<<(!(x||y)?'T':'F')<<" ";
68 cout<<(!x&&!y?'T':'F')<<" ";
69 cout<<endl;
70 x=y=false;//4th Row of the Truth Table
71 cout<<(x?'T':'F')<<" ";
72 cout<<(y?'T':'F')<<" ";
73 cout<<(!x?'T':'F')<<" ";
74 cout<<(!y?'T':'F')<<" ";
75 cout<<(x&&y?'T':'F')<<" ";
76 cout<<(x||y?'T':'F')<<" ";
77 cout<<(x^y?'T':'F')<<" ";
78 cout<<(x^y^x?'T':'F')<<" ";
79 cout<<(x^y^y?'T':'F')<<" ";
80 cout<<(!(x&&y)?'T':'F')<<" ";
81 cout<<(!x||!y?'T':'F')<<" ";
82 cout<<(!(x||y)?'T':'F')<<" ";
83 cout<<(!x&&!y?'T':'F')<<" ";
84 cout<<endl;
85 //Exit stage right
86 return 0;

```

Output

Military_Budget (Build, Run) × Military_Budget (Run) × Truth_Table (Build, Run) × Truth_Table (Run) ×

```

X Y !X !Y X&&Y X||Y X^Y X^Y^X X^Y^Y !X&&!Y !(X||Y) !X||!Y !(X&&Y)
T T F F T T F T T F F F F
T F F T F T T F T T T F F
F T T F F T T T F T T F F
F F T T F F F F F T T T

```

RUN SUCCESSFUL (total time: 324ms)