

## If (multi-conditional) Statements

```
using namespace std;
#include <iostream>

int main ()
{int id;
  double gross, hours, rate, net, fed, state, fica, total;
  //-----
  cin >> id >> hours >> rate;
  //-----
  gross = hours* rate;
  fed=gross*0.2;
  state=gross*0.05;
  fica=gross*0.0765;
  total=fed+state+fica;
  net = gross-total;
  //-----
  cout.setf(ios::fixed);
  cout.setf(ios::showpoint);
  cout.precision(2);
  cout << "Gross : $ " << gross << "\t";
  cout << "Hours : " << hours << endl;
  cout << "Rate : " << rate << endl;
  cout << "net : " << net << endl;
  return (0);
}
```

The program only reaches each successive **else if** if a previous comparison has not been selected.

This section of code is implemented in a table as follows:

| Gross         | Federal tax rate | State tax rate |
|---------------|------------------|----------------|
| 0-200         | 0                | 0              |
| >200and<= 400 | 15%              | 3%             |
| >400and<= 800 | 27%              | 4%             |
| >8            | 31%              | 5%             |

```
using namespace std;
#include <iostream>

int main ()
{int id; double fedtaxrate, statetaxrate;
  double gross, hours, rate, net, fed, state, fica, total;
  //-----
  cin >> id >> hours >> rate;
  //-----
  gross = hours* rate;
  if (gross <=200) ←
  { fedtaxrate=0;
    statetaxrate=0;
  }
  else if (gross <=400)
  { fedtaxrate=0.15;
    statetaxrate=0.03;
  }
  else if (gross <=800)
  { fedtaxrate=0.27;
    statetaxrate=0.04;
  }
  else
  { fedtaxrate=0.31;
    statetaxrate=0.5;
  }
  fed=gross*fedtaxrate;
  state=gross*statetaxrate;
  fica=gross*0.0765;
  total=fed+state+fica;
  net = gross-total;
  //-----
  cout << "Gross : $ " << gross << "\t";
  cout << "Hours : " << hours << endl;
  cout << "Rate : " << rate << endl;
  cout << "net : " << net << endl;
  return (0);
}
```

If the gross pay is less than or equal to 200, then the program set the federal and state tax rates to zero and proceeds to the next section.