## Description

```
\begin{array}{lll} |V| & : \text{ number of markets} \\ |K| & : \text{ number of products} \\ |M^*| & : \text{ number of markets in our optimal solution} \\ \text{OPT} & : \text{ optimal solution} \\ \text{Sec.} & : \text{ time in seconds of the branch-and-cut approach.} \end{array}
```

## NOTE

Those instances consuming CPU time over 18000 seconds did not finish up optimality, I mean, the results in column OPT with time (column SEC) over 18000 are actually upper bounds.

## Generation of distances in Class 3

```
int TPPLIB::euc_2d(int i,int j)
{
  double xd=NodeCoords_[i].first() -NodeCoords_[j].first();
  double yd=NodeCoords_[i].second()-NodeCoords_[j].second();

  double co=sqrt(xd*xd+yd*yd);
  return int(co);
}
```