The problems are generated with:
- $n = (20, 40, 60, 80, 100, 200, 300, 400, 500)$ vertices;
- prizes p_i in [1, 100];
- penalties γ_i in [1, N] with $N \in \{100, 1000, 10,000\}$; and,
- travel costs c_{ij} in [1, M] with $M \in \{1000, 10,000\}$.

The value of minimum prize (p_{min}) has been generated as $\left[\sigma \sum_{i=1}^{n} p_i \right]$ with $\sigma \in \{0.2, 0.5, 0.8\}$

The name of the problems have these information: problem_N_Prize_Penalty_TravelCost.pctsp

One example of these instance is: **problem_5_100_100_1000.pctsp**

```
THE PROBLEM HAS 5 NODES

PRIZE ASSOCIATED TO EACH NODES p_i -> [1,100]
0   10   17   4   13

PENALTY ASSOCIATED TO EACH NODES gama_i -> [1,100]
1000000   57   70   43   55

TRAVEL COST BETWEEN THE NODES c_ij -> [1,1000]
   0     274     163     189     282
 274       0     978     857     422
 163     978       0     102     441
 189     857     102       0     382
 282     422     441     382       0
```