**Part one tests :**

```
?- route(ankara,X).
X = istanbul ;
X = konya ;
X = van ;
X = rize ;
X = istanbul ;
X = izmir ;
X = istanbul ;
X = istanbul ;              ?- route(ankara,rize).
X = van ;                   true .
X = istanbul ;
X = gaziantep ;             ?- route(edirne,van).
X = istanbul ;              false.
X = antalya ;
X = istanbul ;              ?- route(edirne,X).
X = isparta ;               X = edremit ;
X = konya ;                 X = edremit ;
X = gaziantep ;             X = erzincan ;
X = antalya ;               X = edremit ;
X = konya ;                 false.
X = van ;
X = rize ;                  ?- route(erzincan,X).
X = van ;                   X = edremit ;
X = istanbul ;              X = edremit ;
X = istanbul ;              X = edirne ;
X = konya ;                 X = edremit ;
X = antalya ;               false.
X = gaziantep ;
X = konya ;                 ?- route(isparta,X).
X = van ;                   X = izmir ;
X = rize ;                  X = burdur ;
X = istanbul ;              X = rize ;
X = izmir ;                 X = izmir ;
X = istanbul ;              X = istanbul ;
X = van ;                   X = ankara ;
X = istanbul ;              X = van ;
X = gaziantep ;             X = gaziantep ;
X = antalya ;               X = antalya ;
X = konya ;                 X = izmir ;
X = van ;                   X = burdur ;
X = rize ;                  X = izmir ;
X = van ;                   X = burdur ;
false.                      false.

                            ?-
```

**Part two tests :**

```
?- sroute(istanbul,antalya,X).
X = 482 .

?- sroute(ankara,konya,X).
X = 227.34 .

?- sroute(ankara,istanbul,X).
X = 351.5 .
```

```
?- sroute(rize , van,X).
X = 373.01 ;
X = 2230.16 ,
```

**Part three tests :**

```
?- schedule(a,P,T).
P = z23,
T = 10 ;
P = z11,
T = 12.

?- usage(207,T).
T = 16 ,

?- usage(207,T).
T = 16 ;
T = 17.

?- conflict(452,455).
true.

?- conflict(450,455).
false.

?- meet(a,b).
true .

?- meet(a,c).
true.

?- meet(b,c).
false.

?- █
```

**Part4 tests :**

```
?- element(5,[4,3,2,5,6]).
true .

?- element(6,[4,3,2,5,6]).
true.

?- element(10,[4,3,2,5,6]).
false.

?- element(10,[4,3,2,5,6,10]).
true.

?- element(43,[4,3,2,5,6,10]).
false.

?- union([3,4,5,4],[4,9 ,8],X).
X = [3, 5, 4, 9, 8].

?- union([1,2,3],[4,5,6],X).
X = [1, 2, 3, 4, 5, 6].

?- union([3,4,5,4],[4,9 ,8],[3,2,5]).
false.
```

```
?- intersect([4,3,5,3],[3,4,6,2],X).
X = [4, 3] ,

?- intersect([1,2,4],[3,5,6],X).
X = [] ;
false.

?- intersect([1,2,4],[3,5,6],[]).
true.

?- intersect([1,2,4],[3,5,6],[1]).
false.

?- intersect([1,2,4],[3,5,6,1],[1]).
true ;
false.

?-
```

---

**Part 5 tests :**

**Note: I couldn't read/write the input/output  from/to a file**

```
?- solve([7,91,13,7,21]).
7+(91/13+7) = 21
7+91/13+7 = 21
true.

?- █
```

---

```
?- solve([6,91,13,7,20]).
6+(91/13+7) = 20
6+91/13+7 = 20
true.

?-
```

---

```
?- solve([6,91,13,20,33]).
6+(91/13+20) = 33
6+91/13+20 = 33
true.

?- █
```

---

```
?- solve( [5,3,5,7,49]).
(5-(3-5))*7 = 49
(5-3+5)*7 = 49
true.

?- █
```

---

**Part6 tests :**

**Note: I couldn't read/write the input/output  from/to a file**

```
?- test('test1').

   * * *           3
 * *     *         2 1
   * * *       * * 3 2
     * *       * * 2 2
     * * * * * * 6
 *     * * * * *   1 5
 * * * * * *       6
           *       1
         * *       2
 1 3 1 7 5 3 4 3
 2 1 5 1
true .

?-
```