1h 20m left

ALL

# 10. Do They Belong?

A triangle formed by the three points a(x1, y1), b(x2, y2) and c(x3, y3) is a non-degenerate triangle if the following rules are respected (|*ab*| is the length of the line between points *a* and *b*):

- |ab| + |bc| > |ac|
- |bc| + |ac| > |ab|
- |ab| + |ac| > |bc|

A point *belongs* to a triangle if it lies somewhere on or inside the triangle. Given two points *p = (xp, yp)* and *q = (xq, yq)*, return the correct scenario number:

- *0*: If the triangle abc does not form a valid non-degenerate triangle.
- *1*: If point *p* belongs to the triangle but point *q* does not.
- *2*: If point *q* belongs to the triangle but point *p* does not.
- *3*: If both points *p* and *q* belong to the triangle.

C++ Autocomplete Ready

```
 *  3. INTEGER x2
 *  4. INTEGER y2
 *  5. INTEGER x3
 *  6. INTEGER y3
 *  7. INTEGER xp
 *  8. INTEGER yp
 *  9. INTEGER xq
 *  10. INTEGER yq
 */

int pointsBelong(int x1, int y1, int x2, int y2, int x3, int y3

}

int main()
{
    ofstream fout(getenv("OUTPUT_PATH"));

    string x1_temp;
    getline(cin, x1_temp);

    int x1 = stoi(ltrim(rtrim(x1_temp)));

    string y1_temp;
    getline(cin, y1_temp);

    int y1 = stoi(ltrim(rtrim(y1_temp)));

    string x2_temp;
    getline(cin, x2_temp);

    int x2 = stoi(ltrim(rtrim(x2_temp)));

    string y2_temp;
```