

Absecutive

Problem category: Basic Math

Expected difficulty: 500

Solution

First, note that the result will have at least $r - l$ good pairs. Then, if $l < 0$ and $r > 0$, there will be additional pairs:

- One for each negative value whose magnitude is one less than a positive value; and
- One for each positive value that is one less than the magnitude of a negative value.

Just be careful to use a data type capable of representing integers in the range $[0, 4 \cdot 10^9 - 2]$.

Complexity

The answer can be computed in constant time, so the time complexity is $O(1)$.

Note that a linear-time algorithm would work, but would probably exceed the time limit, since it would require at most 10^9 iterations per test case ($\approx 2s$ on a 2.80 GHz processor).

Code

```
void solve() {
    int l, r;
    cin >> l >> r;
    long long ans = r - l;
    if (l < 0 && r > 0) {
        ans += min(-l, r - 1) + min(-l - 1, r);
    }
    cout << ans << endl;
}
```