

Challenge 1 Absolute Differences

You start with a square matrix like this:

```
10 30 20
4 51 49
45 13 9
```

What do you need to do?

The left-to-right diagonal (also call diagonal or 1st diagonal) is $= 10 + 51 + 9 = 70$.

The right to left (also call anti-diagonal or 2st diagonal) is $= 20 + 51 + 45 = 116$.

You need to compute the absolute difference of both diagonals in this case $|70 - 116| = |-46| = 46$.

Function description

Implement the static function Diagonal Difference:

```
public static int DiagonalDifference(List<List<int>> arr)
{
    /* Your implementation goes here */
    throw new NotImplementedException();
}
```

Example of good input

```
3
1,3,4
2,4,8
-10,3,4
```

First line will tell you the array dimension, it will only have one element.

Example of good return

```
11
```

Tips

- Be defensive.
- Check for invalid input.
- All the test must pass.

i Ganbatte Kudasai (がんばって ください) !*

***In japan we don't use "good luck" for to wish the best, because the luck its unpredictable, Ganbatte Kudasai means "do your best".**

Challenge 2 Invalid Mortgage System

As you know we have some legacy software, but we are working to improve it continuously.

Sometimes we have a good tests and sometimes not, in this case you will have them :)

The implementation of *MortgageRiskApprovalSystem* it's a good example.

What do you need to do?

Use the code of *MortgageRiskApprovalSystem* and make this code more maintainable and extensible while keeping all the test passed.

The file path parameter is really ugly, please replace it.

Tips

- Be defensive.
- All the test must pass

i Ganbatte Kudasai ! 😊