Kaip patobulinti savo fighterį?
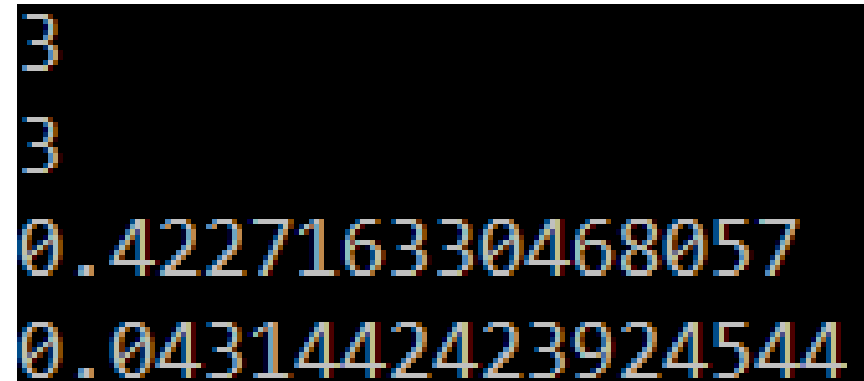
Kaip galiu panaudoti tai, ką moku?

Kaip veikia Boxeris ir Kickboxeris?

Random skaičiai

```
1 reference
public static void GenerateRandomNumber()
{
    Random r = new Random();

    //grąžina skaičių iš intervalo [1, 5] imtinai
    Console.WriteLine(r.Next(1, 5));
    Console.WriteLine(r.Next(1, 5));

    //grąžina skaičių iš intervalo [0.0, 1.0] imtinai
    Console.WriteLine(r.NextDouble());
    Console.WriteLine(r.NextDouble());
}
```

```
3
3
0.422716330468057
0.0431442423924544
```

Daugiau:
https://www.dotnetperls.com/random

Kaip naudoja sample botai?

Boxer.cs

```csharp
1 reference
private Area createRandomAttack()
{
    return new Random().NextDouble() > 0.5d ? Area.Belly : Area.Jaw;
}
```

Daugiau:
https://www.dotnetperls.com/ternary

Kickboxer.cs

```csharp
2 references
private Area CreateRandomArea()
{
    double random = new Random().NextDouble();
    if (random<0.3)
        return Area.Nose;

    if (random<0.7)
        return Area.Jaw;

    if (random<0.9)
        return Area.Groin; // oh yeah

    return Area.Belly;
}
```

Kintamųjų galiojimo sritis (variable scope)

```csharp
1 reference
class Boxer: IFighter
{

    private int myScoreTotal = 0;
    private int opponentScoreTotal = 0;

    7 references
    public Move MakeNextMove(Move opponentLastMove, int myLastScore, int oppLastScore)
    {
        myScoreTotal += myLastScore;
        opponentScoreTotal += oppLastScore;
```
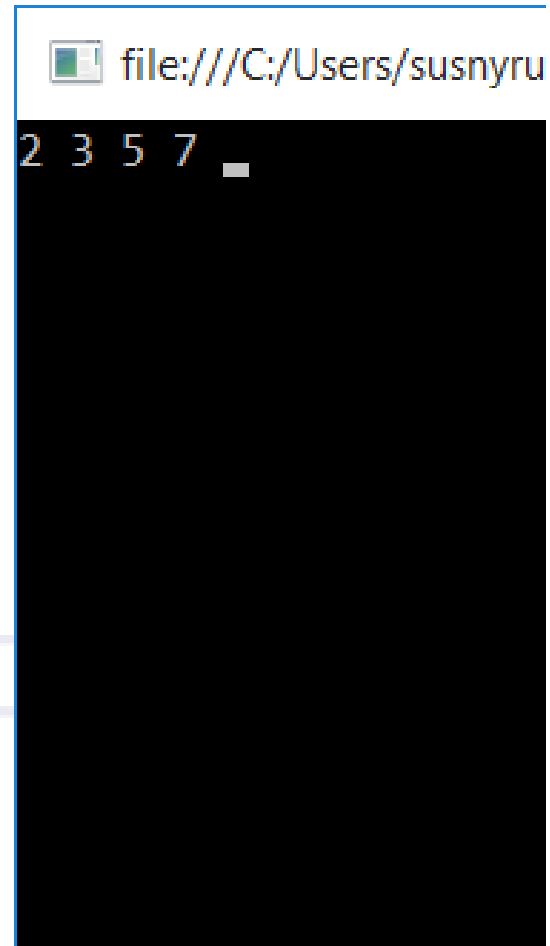
```csharp
7 references
public Move MakeNextMove(Move opponentLastMove, int myLastScore, int oppLastScore)
{
    int myScoreTotal = 0;
    int opponentScoreTotal = 0;

    myScoreTotal += myLastScore;
    opponentScoreTotal += oppLastScore;
```

List<kažkos> kintamojo tipas

```csharp
List<int> list = new List<int>();
list.Add(2);
list.Add(3);
list.Add(5);
list.Add(7);

for (int i = 0; i < list.Count; i++)
{
    Console.Write(list[i] + " ");
}

Console.ReadLine();
```

file:///C:/Users/susnyru
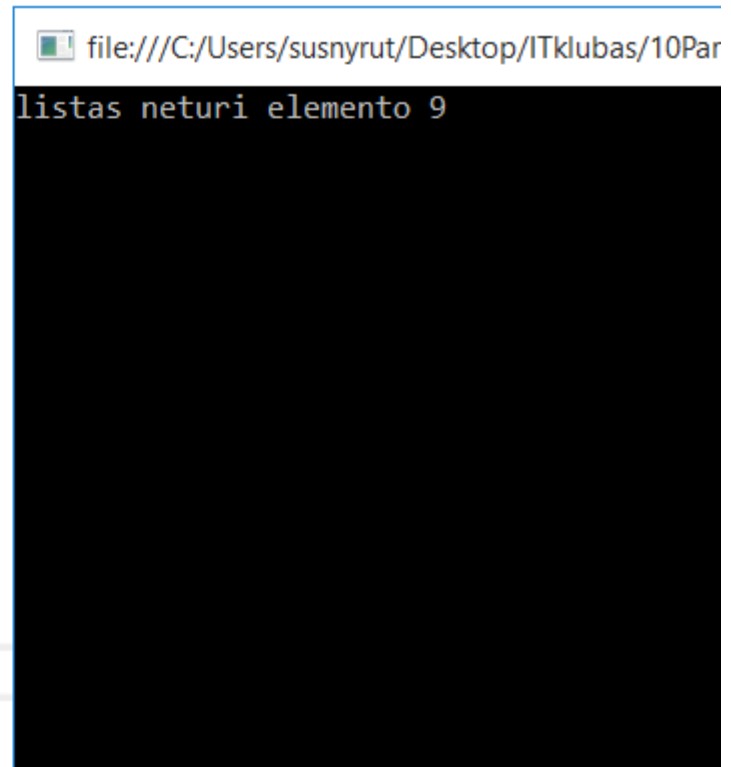
2 3 5 7

Kaip patikrinti, ar List'as turi mano elementą?

Daugiau: https://www.dotnetperls.com/list

```
List<int> list = new List<int>();
list.Add(2);
list.Add(3);
list.Add(5);
list.Add(7);

if (list.Contains(9))
{
    Console.WriteLine("listas turi elementą 9");
}
else
{
    Console.WriteLine("listas neturi elemento 9");
}
```

file:///C:/Users/susnyrut/Desktop/ITklubas/10Par

```
listas neturi elemento 9
```

Kaip kaupti priešo judesius?

```csharp
7 references
public Move MakeNextMove(Move opponentsLastMove, int myLastScore, int opponentsLastScore)
{
    List<Move> opponentsMoves = new List<Move>();

    if (opponentsLastMove != null)
    {
        opponentsMoves.Add(opponentsLastMove);
    }
```

Ar veiks ☺ ?

Pataisytas pavyzdys – opponentsMoves negali būti metodo viduje, nes kas kartą kviečiant metodą būtų sukuriamas iš naujo.

```csharp
List<Move> opponentsMoves = new List<Move>();
7 references
public Move MakeNextMove(Move opponentsLastMove, int myLastScore, int oppo
{
    if (opponentsLastMove != null)
    {
        opponentsMoves.Add(opponentsLastMove);
    }
}
```

Kaip iteruoti per sukauptus priešininko judesius?

```csharp
for(var i = 0; i < opponentsMoves.Count; i++)
{
    for(var j = 0; j < opponentsMoves[i].Attacks.Count; j++)
    {
        if (opponentsMoves[i].Attacks[j] == Area.Jaw)
        {

        }
    }
}
```

```csharp
foreach(Move move in opponentsMoves)
{
    foreach(Area attackArea in move.Attacks)
    {
        if (attackArea == Area.Jaw)
        {

        }
    }
}
```

Ar veikia tokia taktika?

Jeigu priešas 5 kartus iš 10 man smūgiavo į kojas, tuomet aš turėčiau dengti kojas

??? Sugalvok pavyzdį, kada tokia taktika neveiks

```
Nose = 10,
Jaw = 8,
Belly = 6,
Groin = 4,
Legs = 3
```

Jeigu pirmus 5 kartus man priešininkas smūgiavo į kojas, o likusius 4 – į nosį ir aš dengsiu tik kojas, tai neprarasiu 5*3 taškų už kojas, bet prarasiu 4*10 taškų už nosį

Kaip sekėsi mano fighteriui kovoti su Boxer?

Strategija:
1. Gink vieną labiausiai priešininko atakuotą per praėjusius roundus Area
2. Atakuok dvi mažiausiai priešininko gintas per praėjusius roundus Areas

```
Your bot attacked BELLY(+), JAW(+),  scoring 14 while defending JAW,
Boxer attacked NOSE(+), JAW(-),  scoring 10 while defending NOSE,
Your bot vs Boxer: 24 to -12
```

```
Boxer attacked NOSE(+), JAW(-), BELLY(+),  scoring 16  and was NOT defending at all.
Your bot vs Boxer: 2 to 16

Your bot attacked BELLY(+), JAW(+),  scoring 14 while defending JAW,
Boxer attacked NOSE(+), JAW(-), BELLY(+),  scoring 16  and was NOT defending at all.
Your bot vs Boxer: -14 to 2
```

Kaip Boxer kaupia priešininko ir mano taškus?

```csharp
private int myScoreTotal = 0;
private int opponentScoreTotal = 0;

// 7 references
public Move MakeNextMove(Move opponentLastMove, int myLastScore, int oppLastScore)
{
    myScoreTotal += myLastScore;
    opponentScoreTotal += oppLastScore;

    Move move= new Move()
                    .AddAttack(attack1)
                    .AddAttack(attack2);


    if (myScoreTotal>=opponentScoreTotal)
        move.AddAttack(createRandomAttack()); // 3 attacks, 0 defence
    else
        move.AddDefence(defence);             // 2 attacks, 1 defence
```

Ką veikti namuose?

https://www.codewars.com

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ⓘ The code does not execute properly. Try to figure out why.

```
public class CustomMath {
    public static int multiply(int a, string b) {
        return a * b;
    }
}
```

SUBMIT

https://www.codehunt.com/

https://www.codeproject.com

https://www.dotnetperls.com/

https://channel9.msdn.com/Series/C-Sharp-Fundamentals-Development-for-Absolute-Beginners