centro universitário FEI

CENTRO UNIVERSITÁRIO FEI

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Curso de Ciências da Computação

RNA

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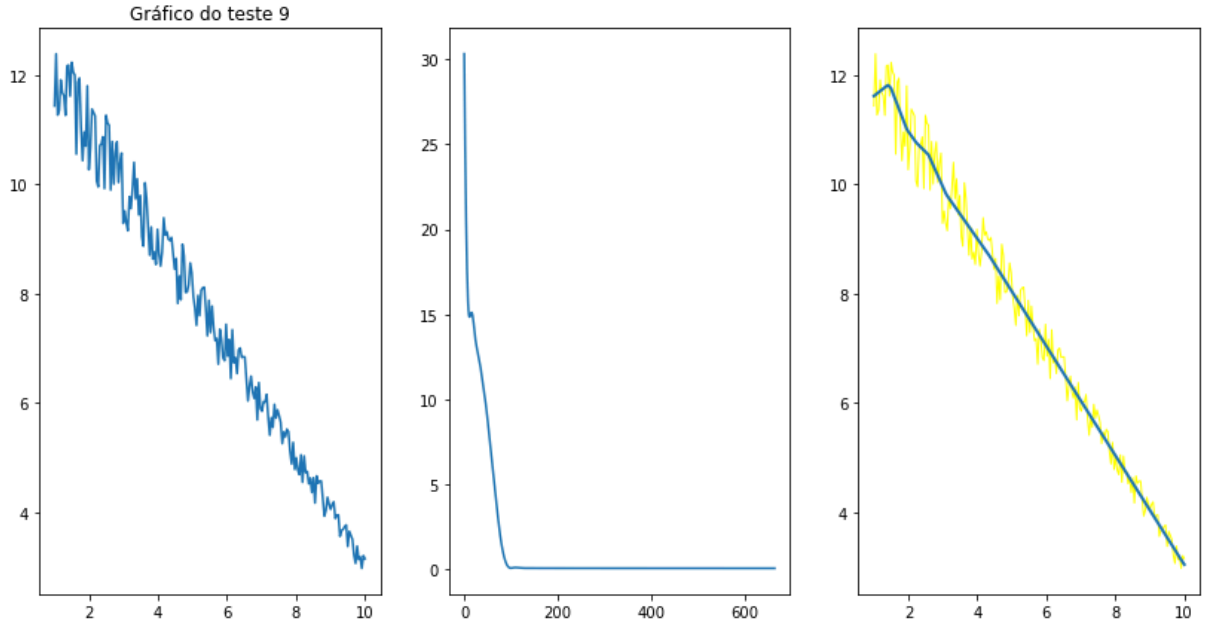
Link do git:
https://github.com/Fernandolin/CC7711---INTELIGENCIA-ARTIFICIAL-E-ROBOTICA

1 Teste 2

1.1 Layers Sizes 200, 200

```
regr = MLPRegressor(hidden_layer_sizes=(200,200),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

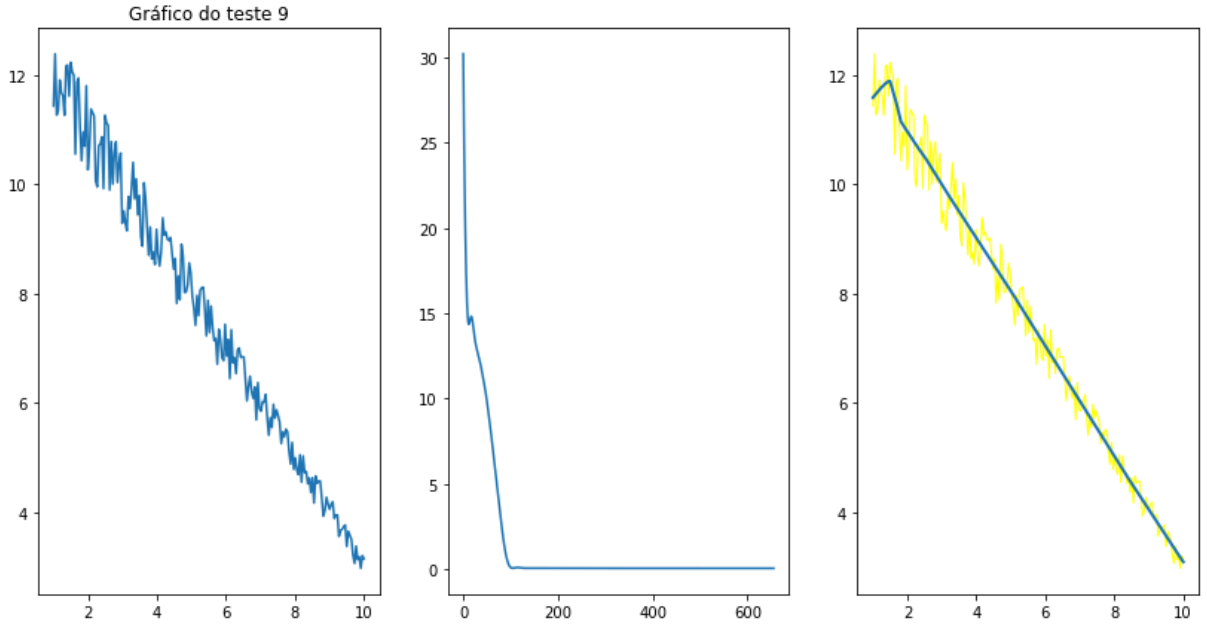
```
A média do BestLoss é : 0.058871
O desvio do BestLoss é : 0.000865
Menor valor: 0.05743129551067477, Posição: 9
```



1.2 Layers Sizes 150, 300

```
regr = MLPRegressor(hidden_layer_sizes=(150,300),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

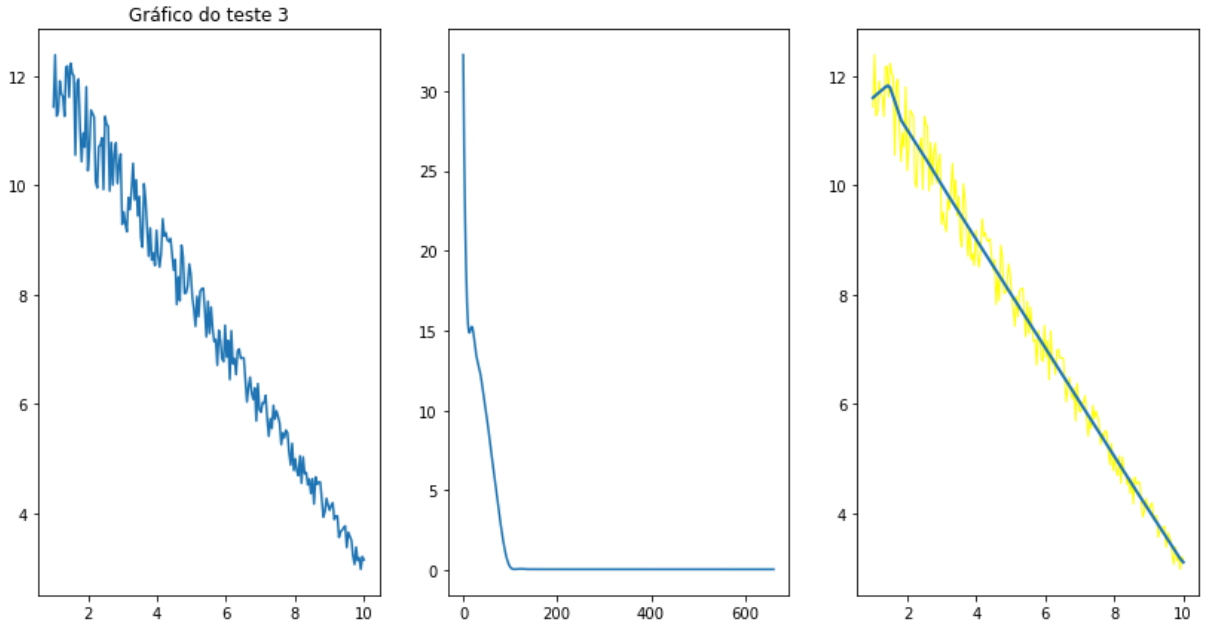
```
A média do BestLoss é : 0.058614
O desvio do BestLoss é : 0.000561
Menor valor: 0.05783993573389324, Posição: 9
```



1.3 Layers Sizes 400, 100

```
regr = MLPRegressor(hidden_layer_sizes=(400,100),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

```
A média do BestLoss é : 0.059437
O desvio do BestLoss é : 0.000468
Menor valor: 0.05839513551517242, Posição: 3
```

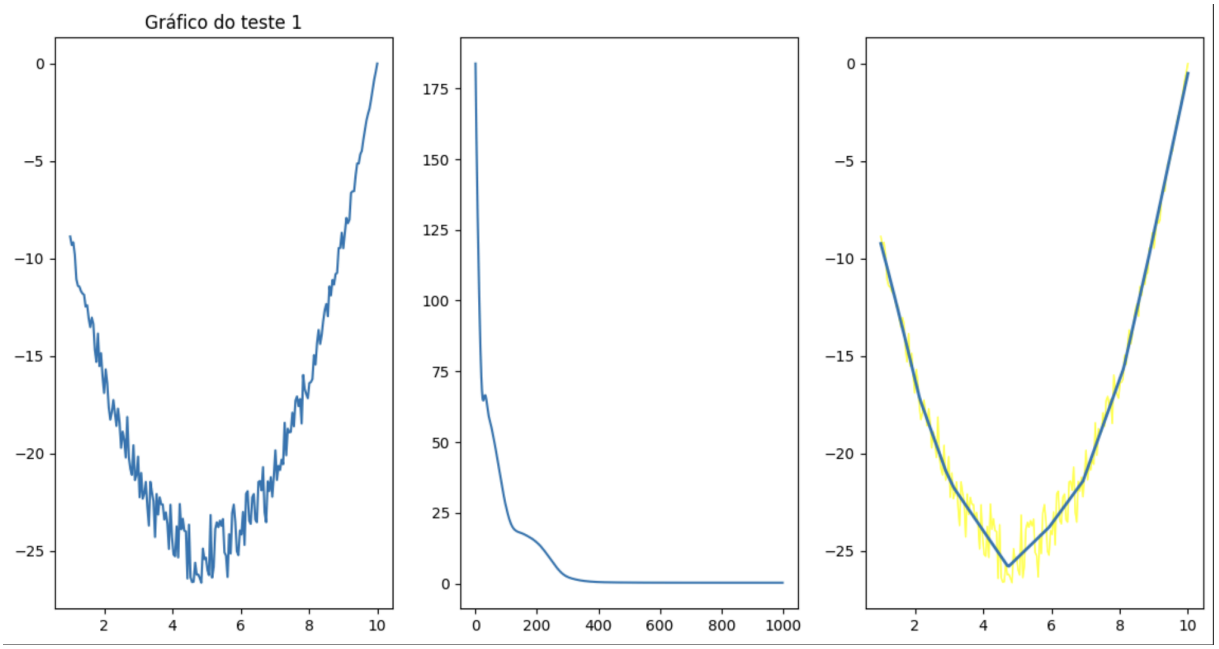


2 Testes 3

2.1 Layers Sizes 200, 300

```
regr = MLPRegressor(hidden_layer_sizes=(200,300),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

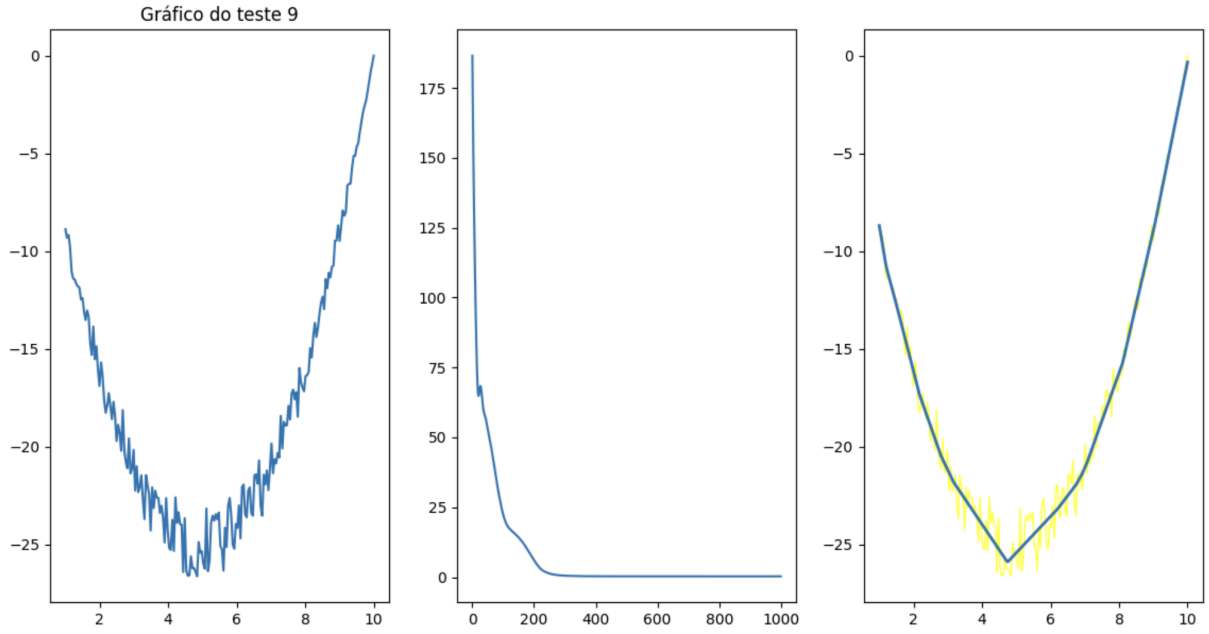
```
A média do BestLoss é : 0.283857
O desvio do BestLoss é : 0.002786
Menor valor: 0.2791655769048737, Posição: 1
```



2.2 Layers Sizes 300, 400

```
regr = MLPRegressor(hidden_layer_sizes=(300,400),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

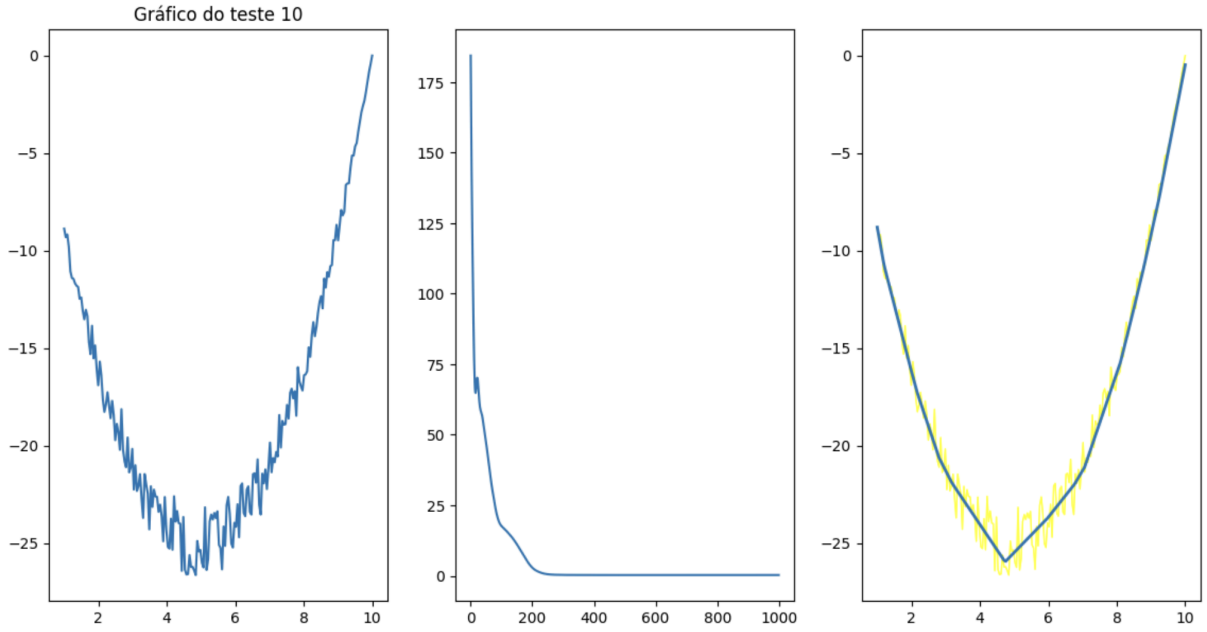
```
A média do BestLoss é : 0.279195
O desvio do BestLoss é : 0.002249
Menor valor: 0.27504039529720914, Posição: 9
```



2.3 Layers Sizes 400, 500

```
regr = MLPRegressor(hidden_layer_sizes=(400,500),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

```
A média do BestLoss é : 0.279491
O desvio do BestLoss é : 0.002172
Menor valor: 0.2759034478603249, Posição: 10
```

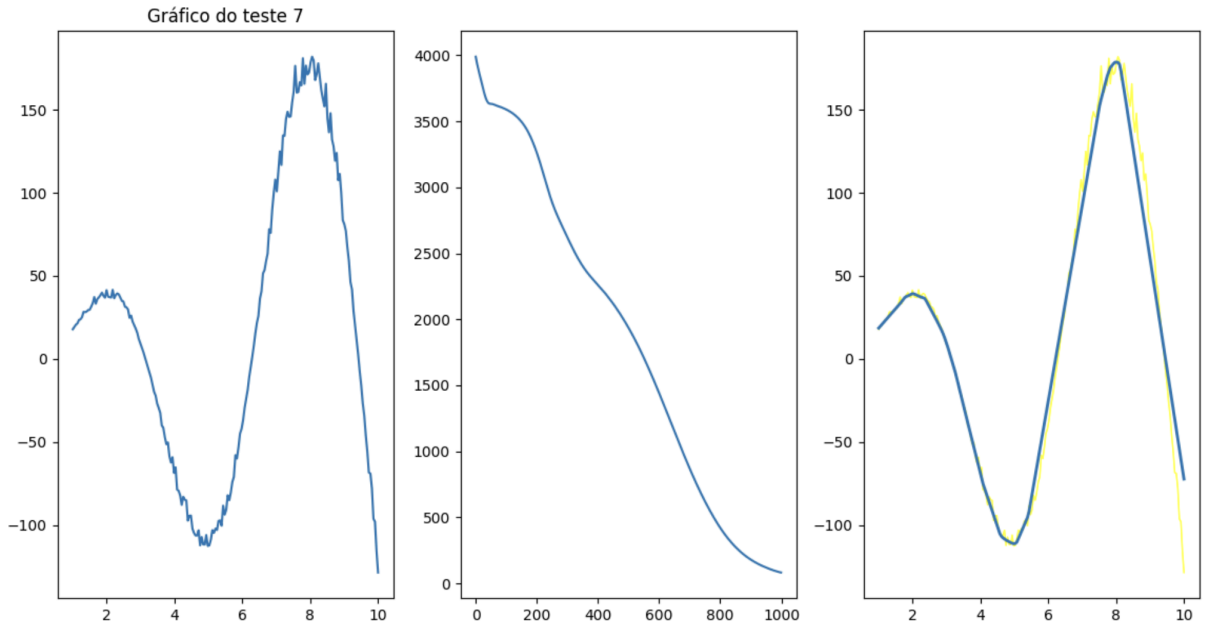


3 Teste 4

3.1 Layers Sizes 200, 150

```
regr = MLPRegressor(hidden_layer_sizes=(200,150),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

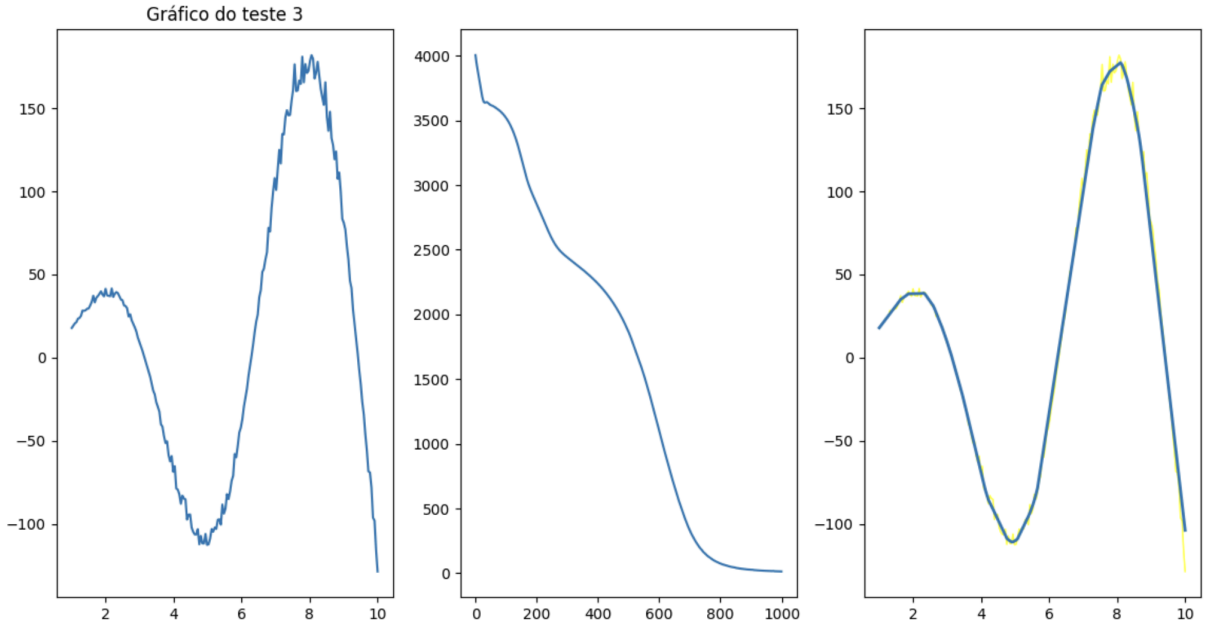
```
A média do BestLoss é : 658.625330
O desvio do BestLoss é : 387.306242
Menor valor: 81.11057464228301, Posição: 7
```



3.2 Layers Sizes 400, 400

```
regr = MLPRegressor(hidden_layer_sizes=(400,400),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

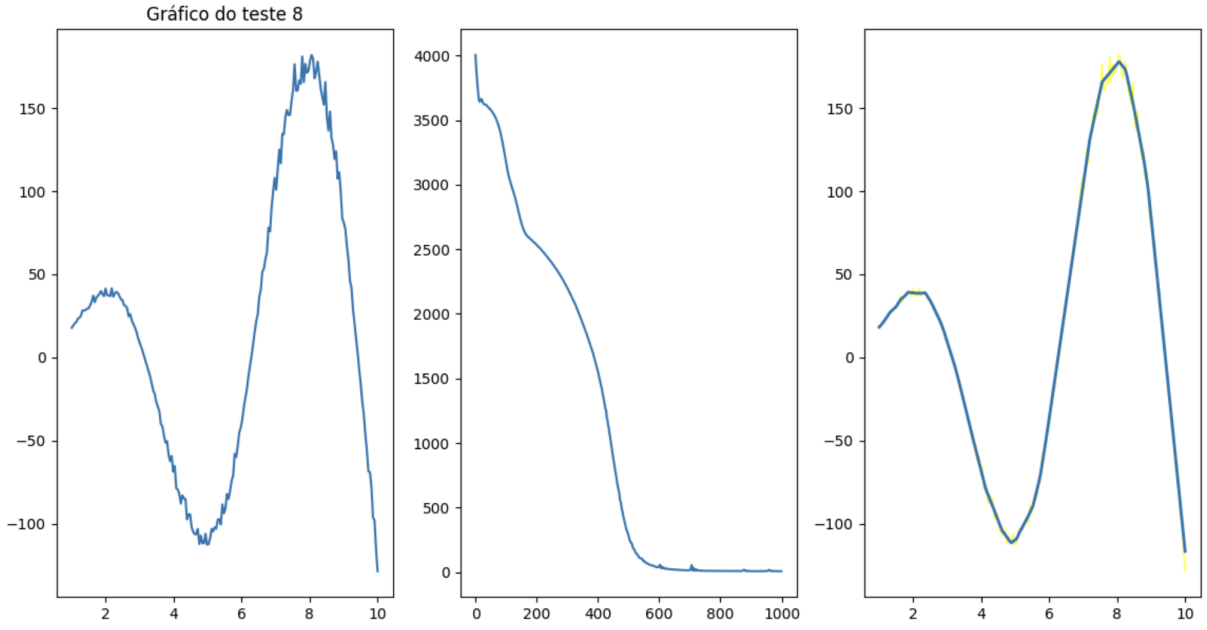
```
A média do BestLoss é : 85.216316
O desvio do BestLoss é : 157.548271
Menor valor: 13.7815548510789, Posição: 3
```



3.3 Layers Sizes 800, 1000

```
regr = MLPRegressor(hidden_layer_sizes=(800,1000),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

```
A média do BestLoss é : 6.661170
O desvio do BestLoss é : 0.769282
Menor valor: 6.09432186787512, Posição: 8
```

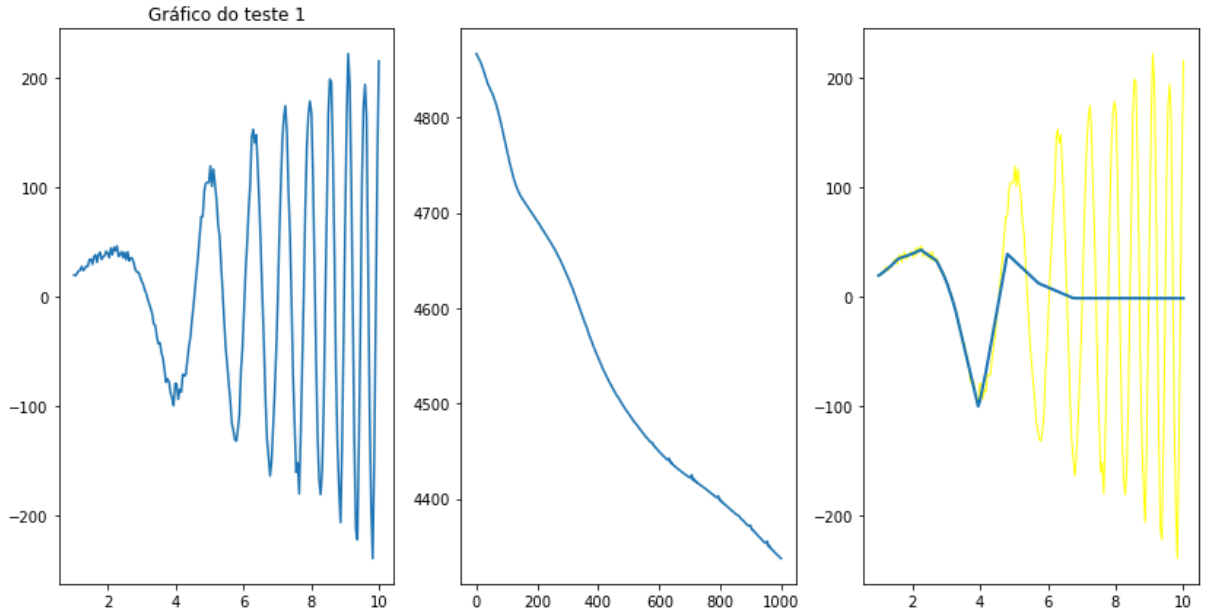


4 Teste 5

4.1 Layers Sizes 500, 500

```
regr = MLPRegressor(hidden_layer_sizes=(500,500),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

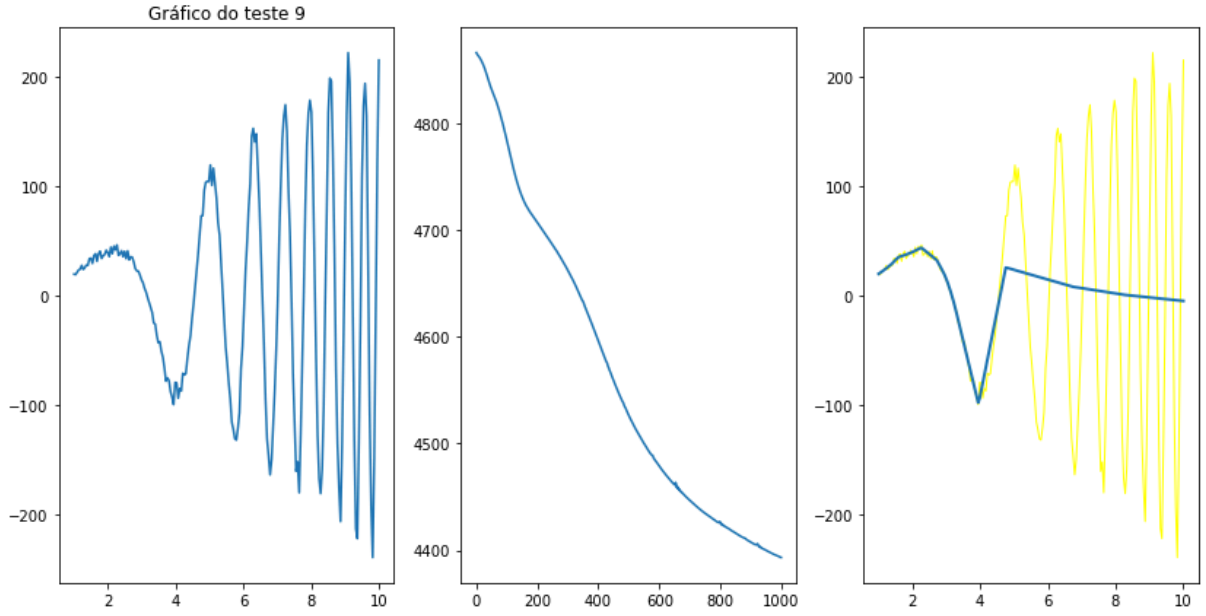
```
A média do BestLoss é : 4400.996712
O desvio do BestLoss é : 30.121056
Menor valor: 4337.29780818682, Posição: 1
```



4.2 Layers Sizes 200, 500

```
regr = MLPRegressor(hidden_layer_sizes=(200,500),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

```
A média do BestLoss é : 4452.011541
O desvio do BestLoss é : 63.666887
Menor valor: 4393.170721494003, Posição: 9
```



4.3 Layers Sizes 700, 300

```
regr = MLPRegressor(hidden_layer_sizes=(700,300),
                    max_iter=1000,
                    activation='relu', #{'identity', 'logistic', 'tanh', 'relu'},
                    solver='adam',
                    learning_rate = 'adaptive',
                    n_iter_no_change=500)
```

```
A média do BestLoss é : 4400.437336
O desvio do BestLoss é : 11.863681
Menor valor: 4381.84392591759, Posição: 10
```