Trabalho 8: Xadrez - Parte 3

1 Entrada (Caso de Teste 1)

```
rnbqkbnr/pppppppp/8/8/8/8/PPPPPPPP/RNBQKBNR w KQkq - 0 1
e2e3
d1f3
f3e4
b1c3
c3d5
e4d4
g1h3
d4d3
d3c4
h3f4
f4d5
c4f4
f4f5
d2d3
c2c3
b2c3
f5e6
d3d4
c3d4
c1d2
e1d2
e6e7
```

2 Saída com Lista de Movimentos e Pontuações

```
rnbqkbnr/pppppppp/8/8/8/8/PPPPPPPP/RNBQKBNR w KQkq - 0 1
rnbqkbnr/pppppppp/8/8/8/4P3/PPPP1PPP/RNBQKBNR b KQkq - 0 1
aa5 0.990806
aa6 0.987166
bb5 0.990806
bb6 0.990806
```

```
cc5 0.992637
cc6 0.992637
dd5 0.998132
dd6 0.996300
ee5 0.999963
ee6 0.999963
ff5 0.990806
ff6 0.990806
gg5 0.990806
gg6 0.990806
hh5 0.988994
hh6 0.988974
Na6 0.980924
Nc6 0.994469
Nf6 0.994469
Nh6 0.990806

Best Move :  ee5 0.999963

rnbqkbnr/pppp1ppp/8/4p3/8/4P3/PPPP1PPP/RNBQKBNR w KQkq e6 0 2
rnbqkbnr/pppp1ppp/8/4p3/8/4PQ2/PPPP1PPP/RNB1KBNR b KQkq - 1 2
aa5 10.779661
aa6 10.571318
bb5 9.021403
bb6 9.004939
cc5 10.759953
cc6 11.036590
dd5 11.324579
dd6 10.799369
ee4 11.834101
ff5 11.242511
ff6 10.976277
gg5 10.759953
gg6 10.799369
hh5 10.590646
hh6 10.759953
Na6 9.707681
Nc6 10.102507
Ne7 10.700828
Nf6 10.102507
Nh6 10.799369
Ba3 9.667852
Bb4 10.755223
Bc5 10.715806
Bd6 10.759953
Be7 10.740244
```

```
Qe7 10.696098
Qf6 0.940655
Qg5 0.802523
Qh4 0.841939
Ke7 10.661411

Best Move :  ee4 11.834101

rnbqkbnr/pppp1ppp/8/8/4p3/4PQ2/PPPP1PPP/RNB1KBNR w KQkq - 0 3
rnbqkbnr/pppp1ppp/8/8/4Q3/4P3/PPPP1PPP/RNB1KBNR b KQkq - 0 3
Ne7 10.355283
Be7 10.393568
Qe7 8.529358

Best Move :  Be7 10.393568

rnbqk1nr/ppppbppp/8/8/4Q3/4P3/PPPP1PPP/RNB1KBNR w KQkq - 1 4
rnbqk1nr/ppppbppp/8/8/4Q3/2N1P3/PPPP1PPP/R1B1KBNR b KQkq - 2 4
aa5 8.307269
aa6 8.182310
bb5 7.219926
bb6 7.206677
cc5 8.307269
cc6 8.467122
dd5 8.947070
dd6 8.322541
ff5 8.884058
ff6 8.291998
gg5 8.307269
gg6 8.451613
hh5 8.451613
hh6 8.420596
Na6 7.649479
Nc6 7.914758
Nf6 8.612706
Nh6 8.322541
Kf8 8.307269

Best Move :  dd5 8.947070

rnbqk1nr/ppp1bppp/8/3p4/4Q3/2N1P3/PPPP1PPP/R1B1KBNR w KQkq d6 0 5
rnbqk1nr/ppp1bppp/8/3N4/4Q3/4P3/PPPP1PPP/R1B1KBNR b KQkq - 0 5
aa5 9.799221
aa6 9.628740
bb5 9.816926
bb6 9.628740
```

```
cc5 9.975847
cc6 9.993872
ff5 10.489354
ff6 9.611343
gg5 9.799221
gg6 9.975847
hh5 9.975847
hh6 9.957823
Na6 8.913520
Nc6 9.834632
Nd7 9.631020
Nf6 9.220071
Nh6 9.781516
Bd7 9.684136
Be6 8.897386
Bf5 9.634113
Bg4 9.055756
Bh3 8.877380
Qxd5 0.934720
Qd6 0.959986
Qd7 9.816926
Kd7 9.595609
Kf8 9.799221


Best Move :  ff5 10.489354

rnbqk1nr/ppp1b1pp/8/3N1p2/4Q3/4P3/PPPP1PPP/R1B1KBNR w KQkq f6 0 6
rnbqk1nr/ppp1b1pp/8/3N1p2/3Q4/4P3/PPPP1PPP/R1B1KBNR b KQkq - 1 6
aa5 8.583437
aa6 8.452352
bb5 8.467624
bb6 8.583437
cc5 9.017958
cc6 8.598945
ff4 8.614454
gg5 7.332538
gg6 7.332538
hh5 8.437080
hh6 8.421808
Na6 7.783319
Nc6 8.773060
Nd7 8.322541
Nf6 7.994491
Nh6 8.437080
Bd7 8.353085
Be6 8.372327
```

```
Ba3 8.418143
Bb4 8.579715
Bc5 8.966919
Bd6 9.185729
Bf6 9.002205
Bf8 9.227409
Bg5 9.210737
Bh4 8.437080
Qxd5 0.850556
Qd6 0.828039
Qd7 8.467624
Kd7 8.307269
Kf7 0.816432
Kf8 8.452352

Best Move :  Bf8 9.227409

rnbqkbnr/ppp3pp/8/3N1p2/3Q4/4P3/PPPP1PPP/R1B1KBNR w KQkq - 2 7
rnbqkbnr/ppp3pp/8/3N1p2/3Q4/4P2N/PPPP1PPP/R1B1KB1R b KQkq - 3 7
aa5 9.244081
aa6 9.092489
bb5 9.108888
bb6 9.244081
cc5 9.722957
cc6 9.260754
ff4 9.369123
gg5 7.702973
gg6 7.811496
hh5 9.076091
hh6 9.059692
Na6 8.325211
Nc6 9.436865
Nd7 8.953099
Ne7 8.250000
Nf6 8.567928
Nh6 9.076091
Bd7 8.985897
Be6 9.006560
Ba3 8.291516
Bb4 8.448687
Bc5 8.827854
Bd6 9.035093
Be7 8.310168
Qxd5 0.825796
Qd6 0.872745
Qd7 9.076091
```

```
Qe7 6.835709
Qf6 0.817133
Qg5 0.496624
Qh4 0.802951
Kd7 8.936701
Kf7 0.712693

Best Move :  cc5 9.722957

rnbqkbnr/pp4pp/8/2pN1p2/3Q4/4P2N/PPPP1PPP/R1B1KB1R w KQkq c6 0 8
rnbqkbnr/pp4pp/8/2pN1p2/8/3QP2N/PPPP1PPP/R1B1KB1R b KQkq - 1 8
aa5 10.271582
aa6 10.102947
bb5 10.308633
bb6 10.084758
cc4 10.861835
ff4 9.879958
gg5 10.102947
gg6 10.290107
hh5 10.271582
hh6 10.253057
Na6 9.321789
Nc6 10.290107
Nd7 10.132642
Ne7 9.271352
Nf6 9.304976
Nh6 10.271582
Bd7 10.169692
Be6 10.193034
Bd6 10.225269
Be7 9.304976
Qa5 0.754353
Qb6 0.640175
Qc7 0.561250
Qxd5 0.908427
Qd6 0.985921
Qd7 10.253057
Qe7 7.491367
Qf6 0.640175
Qg5 0.544259
Qh4 0.856243
Kd7 10.114116
Kf7 0.823638

Best Move :  cc4 10.861835
```

```
rnbqkbnr/pp4pp/8/3N1p2/2p5/3QP2N/PPPP1PPP/R1B1KB1R w KQkq - 0 9
rnbqkbnr/pp4pp/8/3N1p2/2Q5/4P2N/PPPP1PPP/R1B1KB1R b KQkq - 0 9
aa5 8.734405
aa6 8.614454
bb5 9.065217
bb6 8.598945
ff4 9.010243
gg5 8.614454
gg6 8.750158
hh5 8.734405
hh6 8.718652
Na6 8.037982
Nc6 8.906210
Nd7 8.616257
Ne7 7.965497
Nf6 8.023485
Nh6 8.734405
Bd7 9.468092
Be6 9.489824
Ba3 8.005509
Bb4 8.137982
Bc5 8.998373
Bd6 8.695022
Be7 8.023485
Qa5 0.728103
Qb6 0.602813
Qc7 0.802316
Qxd5 0.799068
Qd6 0.838374
Qd7 8.718652
Qe7 6.628516
Qf6 0.578565
Qg5 0.481571
Qh4 0.790737
Kd7 8.600504
Kf7 0.700378

Best Move :  Be6 9.489824

rn1qkbnr/pp4pp/4b3/3N1p2/2Q5/4P2N/PPPP1PPP/R1B1KB1R w KQkq - 1 10
rn1qkbnr/pp4pp/4b3/3N1p2/2Q2N2/4P3/PPPP1PPP/R1B1KB1R b KQkq - 2 10
aa5 8.667612
aa6 8.548697
bb5 8.998425
bb6 8.533189
gg5 8.770006
```

```
gg6 8.548697
hh5 8.533189
hh6 8.651859
Na6 8.056248
Nc6 8.204178
Nd7 8.770006
Ne7 7.904030
Nf6 7.962018
Nh6 8.667612
Bc8 8.734405
Bxd5 9.803571
Bd7 9.468092
Bf7 9.545705
Ba3 7.944042
Bb4 8.075610
Bc5 8.196178
Bd6 8.770006
Be7 7.962018
Qa5 0.712350
Qb6 0.720902
Qc7 0.818851
Qc8 6.928468
Qxd5 0.970482
Qd6 0.913043
Qd7 8.718652
Qe7 6.710233
Qf6 0.684530
Qg5 0.767486
Qh4 0.814745
Kd7 8.718652
Kf7 8.561122


Best Move :  Bxd5 9.803571


rn1qkbnr/pp4pp/8/3b1p2/2Q2N2/4P3/PPPP1PPP/R1B1KB1R w KQkq - 0 11
rn1qkbnr/pp4pp/8/3N1p2/2Q5/4P3/PPPP1PPP/R1B1KB1R b KQkq - 0 11
aa5 10.033248
aa6 9.871188
bb5 10.416880
bb6 9.853247
ff4 10.238556
gg5 10.051516
gg6 10.069784
hh5 10.033248
hh6 10.014980
Na6 9.208499
```

```
Nc6 9.397704
Nd7 10.033248
Ne7 9.050797
Nf6 9.100598
Nh6 10.051516
Ba3 9.080013
Bb4 9.250169
Bc5 9.408997
Bd6 9.987578
Be7 9.100598
Qa5 0.789551
Qb6 0.660700
Qc7 0.779764
Qc8 7.495525
Qxd5 0.901022
Qd6 0.935696
Qd7 10.069784
Qe7 7.400597
Qf6 0.633577
Qg5 0.689076
Qh4 0.796311
Kd7 9.914505
Kf7 0.734746


Best Move :  bb5 10.416880

rn1qkbnr/p5pp/8/1p1N1p2/2Q5/4P3/PPPP1PPP/R1B1KB1R w KQkq b6 0 12
rn1qkbnr/p5pp/8/1p1N1p2/5Q2/4P3/PPPP1PPP/R1B1KB1R b KQkq - 1 12
aa5 9.187000
aa6 9.203667
bb4 9.170333
gg5 9.520333
gg6 9.220333
hh5 9.187000
hh6 9.020000
Na6 10.137248
Nc6 10.173945
Nd7 10.077431
Ne7 8.354504
Nf6 8.400305
Nh6 8.430840
Ba3 8.381374
Bb4 8.526822
Bc5 9.166333
Bd6 9.571525
Be7 8.400305
```

```
Qa5 0.628667
Qb6 0.604051
Qc7 0.796138
Qc8 8.962000
Qxd5 0.898596
Qd6 0.954759
Qd7 9.203667
Qe7 6.933165
Qf6 0.616709
Qg5 0.727179
Qh4 0.743291
Kd7 9.078667
Kf7 0.703667


Best Move :  Nc6 10.173945

r2qkbnr/p5pp/2n5/1p1N1p2/5Q2/4P3/PPPP1PPP/R1B1KB1R w KQkq - 2 13
r2qkbnr/p5pp/2n5/1p1N1Q2/8/4P3/PPPP1PPP/R1B1KB1R b KQkq - 0 13
aa5 9.669462
aa6 9.686932
bb4 9.469093
gg5 9.669462
gg6 10.197013
hh5 9.669462
hh6 9.805832
Na5 9.708595
Nb4 8.905324
Nb8 9.595038
Nd4 9.220274
Ne5 9.318992
Nce7 9.064712
Nge7 9.112528
Nf6 10.019551
Nh6 10.018868
Ba3 9.612858
Bb4 9.686932
Bc5 10.634712
Bd6 10.610359
Be7 9.634521
Rb8 9.686932
Rc8 8.264723
Qa5 9.529700
Qb6 7.171039
Qb8 9.608316
Qc7 7.039874
Qc8 7.479276
```

```
Qxd5 8.053143
Qd6 9.664920
Qd7 7.578682
Qe7 7.154774
Qf6 8.244399
Qg5 7.409357
Qh4 9.424878

Best Move :  Bc5 10.634712

r2qk1nr/p5pp/2n5/1pbN1Q2/8/4P3/PPPP1PPP/R1B1KB1R w KQkq - 1 14
r2qk1nr/p5pp/2n5/1pbN1Q2/8/3PP3/PPP2PPP/R1B1KB1R b KQkq - 0 14
aa5 11.309807
aa6 11.330324
bb4 11.042220
gg5 11.309807
gg6 11.965647
hh5 11.309807
hh6 11.504818
Na5 11.376282
Nb4 10.296460
Nb8 11.242922
Nd4 10.646755
Ne5 10.867451
Nce7 10.517699
Nge7 10.536136
Nf6 10.552067
Nh6 11.720148
Ba3 10.144543
Bb4 28.640855
Bb6 10.185841
Bd4 10.259587
Bd6 11.263439
Bxe3 10.494741
Be7 10.167404
Bf8 10.185841
Rb8 11.330324
Rc8 9.422540
Qa5 31.642183
Qb6 8.056097
Qb8 11.237998
Qc7 7.904931
Qc8 8.384706
Qxd5 9.149919
Qd6 11.370948
Qd7 8.525322
```

```
Qe7 8.052554
Qf6 8.601765
Qg5 8.304465
Qh4 11.022569

Best Move :  Qa5 31.642183


r3k1nr/p5pp/2n5/qpbN1Q2/8/3PP3/PPP2PPP/R1B1KB1R w KQkq - 1 15
r3k1nr/p5pp/2n5/qpbN1Q2/8/2PPP3/PP3PPP/R1B1KB1R b KQkq - 0 15
aa6 11.125154
bb4 10.946522
gg5 11.166188
gg6 11.798073
hh5 11.145671
hh6 11.358190
Nb4 9.992257
Nb8 0.686910
Nd4 10.278024
Nd8 0.748461
Ne5 10.514510
Nce7 10.342552
Nge7 10.545354
Nf6 10.561639
Nh6 11.556011
Ba3 10.019912
Bb4 10.019912
Bb6 10.038348
Bd4 10.056785
Bd6 11.166188
Bxe3 10.172198
Be7 10.056785
Bf8 10.038348
Rb8 11.258515
Rc8 9.286347
Rd8 11.371358
Qxa2 8.222056
Qa3 8.067316
Qa4 11.207222
Qa6 10.945425
Qb4 8.096841
Qb6 8.056097
Qxc3 22.792737
Qc7 7.904931
Qd8 11.289290
Kd8 11.104637
```

```
Best Move :  Qxc3 22.792737

r3k1nr/p5pp/2n5/1pbN1Q2/8/2qPP3/PP3PPP/R1B1KB1R w KQkq - 0 16
r3k1nr/p5pp/2n5/1pbN1Q2/8/2PPP3/P4PPP/R1B1KB1R b KQkq - 0 16
aa5 10.817398
aa6 10.837915
bb4 10.579815
gg5 10.837915
gg6 11.462924
hh5 10.817398
hh6 11.023041
Na5 10.817398
Nb4 9.936947
Nb8 0.563808
Nd4 10.167404
Nd8 0.604842
Ne5 10.377255
Nce7 10.213496
Nge7 10.250369
Nf6 10.255360
Nh6 11.227739
Ba3 9.803466
Bb4 9.761799
Bb6 9.743363
Bd4 9.780236
Bd6 10.858432
Bxe3 9.858776
Be7 9.761799
Bf8 9.743363
Rb8 10.950759
Rc8 9.030984
Rd8 11.043086
Kd8 10.796881

Best Move :  gg6 11.462924

r3k1nr/p6p/2n3p1/1pbN1Q2/8/2PPP3/P4PPP/R1B1KB1R w KQkq - 0 17
r3k1nr/p6p/2n1Q1p1/1pbN4/8/2PPP3/P4PPP/R1B1KB1R b KQkq - 1 17
Nce7 8.971878
Nge7 9.124617
Be7 8.273350
Kd8 8.842317
Kf8 8.842317

Best Move :  Nge7 9.124617
```

```
r3k2r/p3n2p/2n1Q1p1/1pbN4/8/2PPP3/P4PPP/R1B1KB1R w KQkq - 2 18
r3k2r/p3n2p/2n1Q1p1/1pbN4/3P4/2P1P3/P4PPP/R1B1KB1R b KQkq - 0 18
aa5 7.971148
aa6 7.986020
bb4 7.839683
gg5 7.971148
hh5 7.986020
hh6 7.986020
Na5 8.491234
Nb4 7.868992
Nb8 8.510998
Nxd4 9.021380
Nd8 8.829774
Ne5 7.937835
Ba3 8.067817
Bb4 8.034206
Bb6 7.989590
Bxd4 8.253623
Bd6 8.890023
Rb8 8.067817
Rc8 7.010357
Rd8 8.038073
Rf8 8.097561
Rg8 6.997411
Kd8 7.956276
Kf8 7.956276

Best Move :  Nxd4 9.021380

r3k2r/p3n2p/4Q1p1/1pbN4/3n4/2P1P3/P4PPP/R1B1KB1R w KQkq - 0 19
r3k2r/p3n2p/4Q1p1/1pbN4/3P4/4P3/P4PPP/R1B1KB1R b KQkq - 0 19
aa5 8.491234
aa6 8.358017
bb4 8.443417
gg5 8.475295
hh5 8.491234
hh6 8.491234
Ba3 8.547019
Bb4 24.414090
Bb6 8.632653
Bxd4 8.912213
Bd6 8.803754
Rb8 8.491234
Rc8 7.430300
Rd8 8.547019
Rf8 8.610775
```

```
Rg8 7.372010
Kd8 8.459356
Kf8 8.459356

Best Move :  Bb4 24.414090


r3k2r/p3n2p/4Q1p1/1p1N4/1b1P4/4P3/P4PPP/R1B1KB1R w KQkq - 1 20
r3k2r/p3n2p/4Q1p1/1p1N4/1b1P4/4P3/P2B1PPP/R3KB1R b KQkq - 2 20
aa5 0.963869
aa6 0.958166
gg5 0.959874
hh5 0.961658
hh6 0.961658
Ba3 0.954156
Ba5 0.952825
Bc3 0.977708
Bc5 0.944814
Bxd2 2.742596
Bd6 0.955336
Rb8 0.959874
Rc8 0.954445
Rd8 0.966116
Rf8 0.975033
Rg8 0.950941
Kd8 0.958091
Kf8 0.958091

Best Move :  Bxd2 2.742596


r3k2r/p3n2p/4Q1p1/1p1N4/3P4/4P3/P2b1PPP/R3KB1R w KQkq - 0 21
r3k2r/p3n2p/4Q1p1/1p1N4/3P4/4P3/P2K1PPP/R4B1R b kq - 0 21
aa5 9.957358
aa6 9.754444
bb4 9.919623
gg5 9.938491
hh5 9.957358
hh6 9.957358
Rb8 9.938491
Rc8 8.495873
Rd8 10.023396
Rf8 10.098868
Rg8 8.432381
Kd8 9.919623
Kf8 9.919623

Best Move :  Rf8 10.098868
```

```
r3kr2/p3n2p/4Q1p1/1p1N4/3P4/4P3/P2K1PPP/R4B1R w - 1 22
r3kr2/p3Q2p/6p1/1p1N4/3P4/4P3/P2K1PPP/R4B1R b - 0 22
Xeque-mate -- Vitoria:   BRANCO
```