

Editor - Q:\VYUKA\HONZIKP\lbpal\cviceniGA\main.m

File Edit Text Go Cell Tools Debug Desktop Window Help

Stack: Base fx

1.0 1.1 x % % ?

```
29 % 1. vygeneruj prvni populaci
30 populace=GENERUJ(N,xMIN,xMAX); % populace je matice vektroou x (co radek to x=[x1,x2,...,x6])
31 fitness=VYHODNOCENI(populace);
32
33 generace=0;
34 fitmean(1)=mean(fitness);fitmax(1)=max(fitness); % pro ucely vykresleni grafu
35
36
37
38
39 while (generace<G)
40
41     elita=ELITISMUS(elit,populace,fitness);
42     selekce=SELEKCE(round(N/2),populace,fitness);
43     krizeni=KRIZENIreal(pK,selekce,xMIN,xMAX);
44     mutace=MUTACEreal(pM,generace,G,krizeni,xMIN,xMAX);
45     novagen=[mutace;elita;selekce];
46
47     clear fitness;
48     fitness=VYHODNOCENI(novagen);
49     clear populace;
50     populace=novagen;
51     clear elita selekce krizeni mutace novagen;
52     generace=generace+1;
53
54     fitmean(generace+1)=mean(fitness);fitmax(generace+1)=max(fitness);
55 end
56
57
58
59 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
60 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
61 % PRUBEH K ZISKANI NEJLEPSIHO JEDINCE
62
63 [fxy index]=max(fitness);
```

Populace

$fit = f(x_1, \dots, x_6)$

N

6

N

1

Ln 49 Col 22 OVR

script

start

cviceniGA

MATLAB 7.9.0 (R200...

Editor - Q:\VYUKA\H...

EN

8:06

Editor - Q:\VYUKA\HONZIKP\lbpal\cviceniGA\main.m

File Edit Text Go Cell Tools Debug Desktop Window Help

Stack: Base fx

1.0 1.1 x % % ?

```
29 % 1. vygeneruj prvni populaci
30 populace=GENERUJ(N,xMIN,xMAX); % populace je matice vektrov x (co radek to x=[x1,x2,...,x6])
31 fitness=VYHODNOCENI(populace);
32
33 generace=0;
34 fitmean(1)=mean(fitness);fitmax(1)=max(fitness); % pro ucely vykresleni grafu
35
36
37
38
39 while (generace<G)
40
41     elita=ELITISMUS(elit,populace,fitness);
42     selekce=SELEKCE(round(N/2),populace,fitness);
43     krizeni=KRIZENIreal(pK,selekce,xMIN,xMAX);
44     mutace=MUTACEreal(pM,generace,G,krizeni,xMIN,xMAX);
45     novagen=[mutace;elita;selekce];
46
47     clear fitness;
48     fitness=VYHODNOCENI(novagen);
49     clear populace;
50     populace=novagen;
51     clear elita selekce krizeni mutace novagen;
52     generace=generace+1;
53
54     fitmean(generace+1)=mean(fitness);fitmax(generace+1)=max(fitness);
55 end
56
57
58
59 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
60 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
61 % PRUBEH K ZISKANI NEJLEPSIHO JEDINCE
62
63 [fxy index]=max(fitness);
```

Populace

$fit = f(x_1, \dots, x_6)$

N

6

N

1

Ln 49 Col 22 OVR

script

start

cviceniGA

MATLAB 7.9.0 (R200...

Editor - Q:\VYUKA\H...

EN

8:06