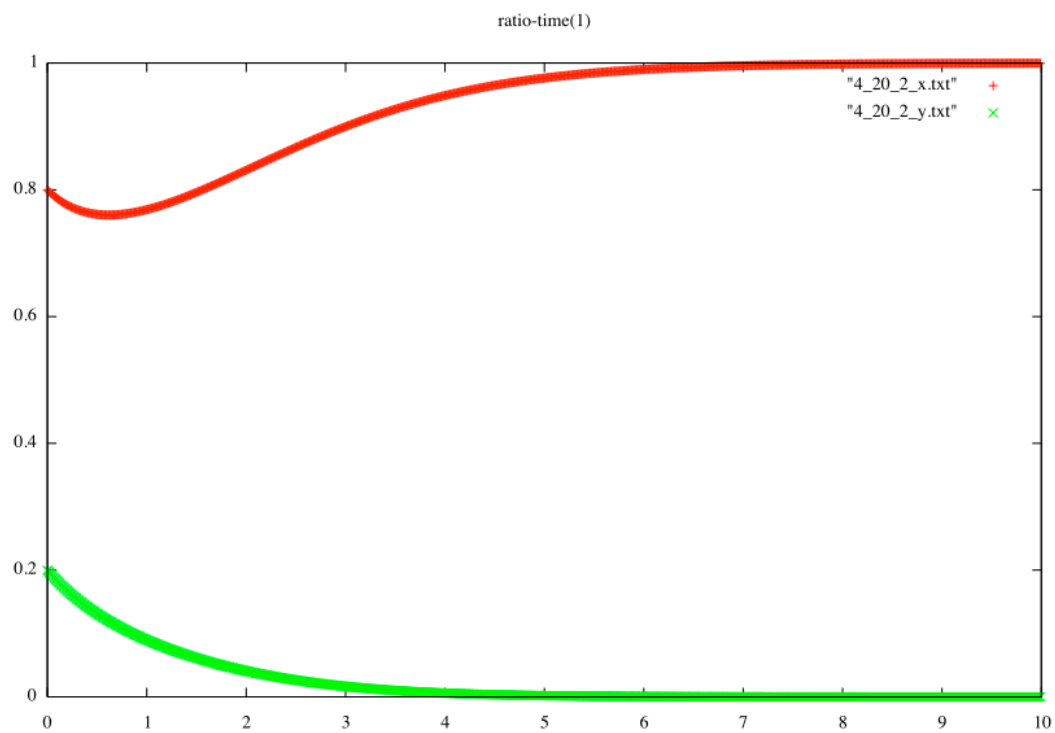
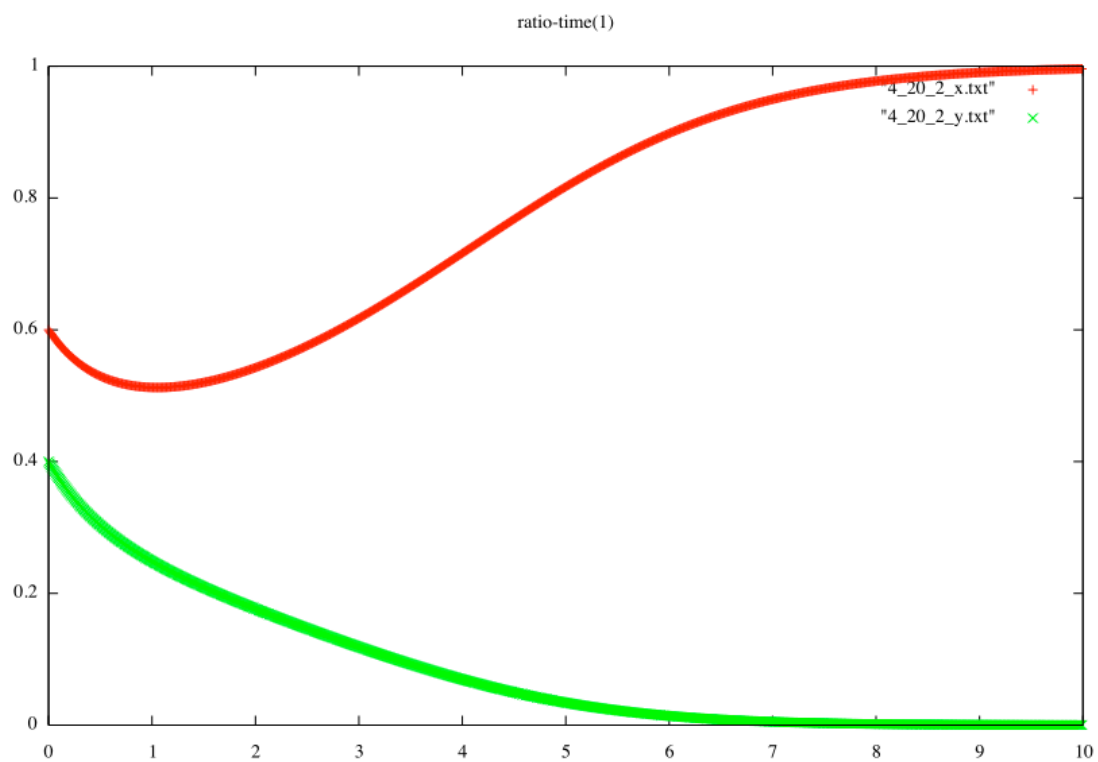
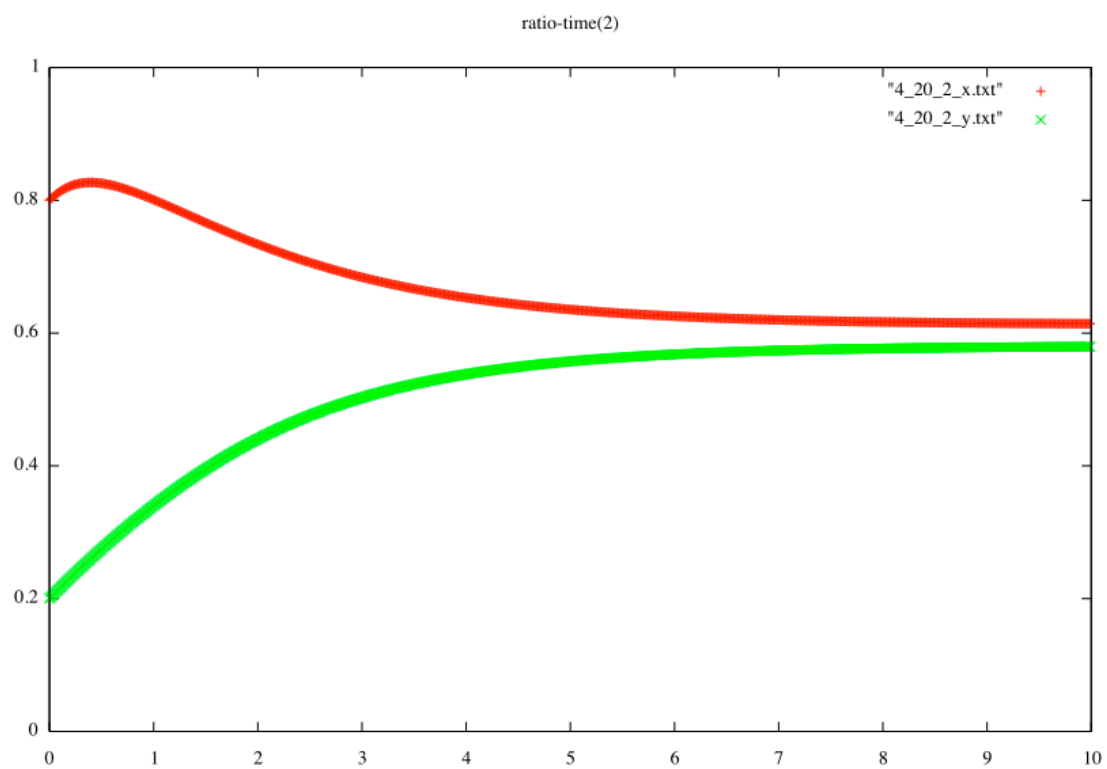
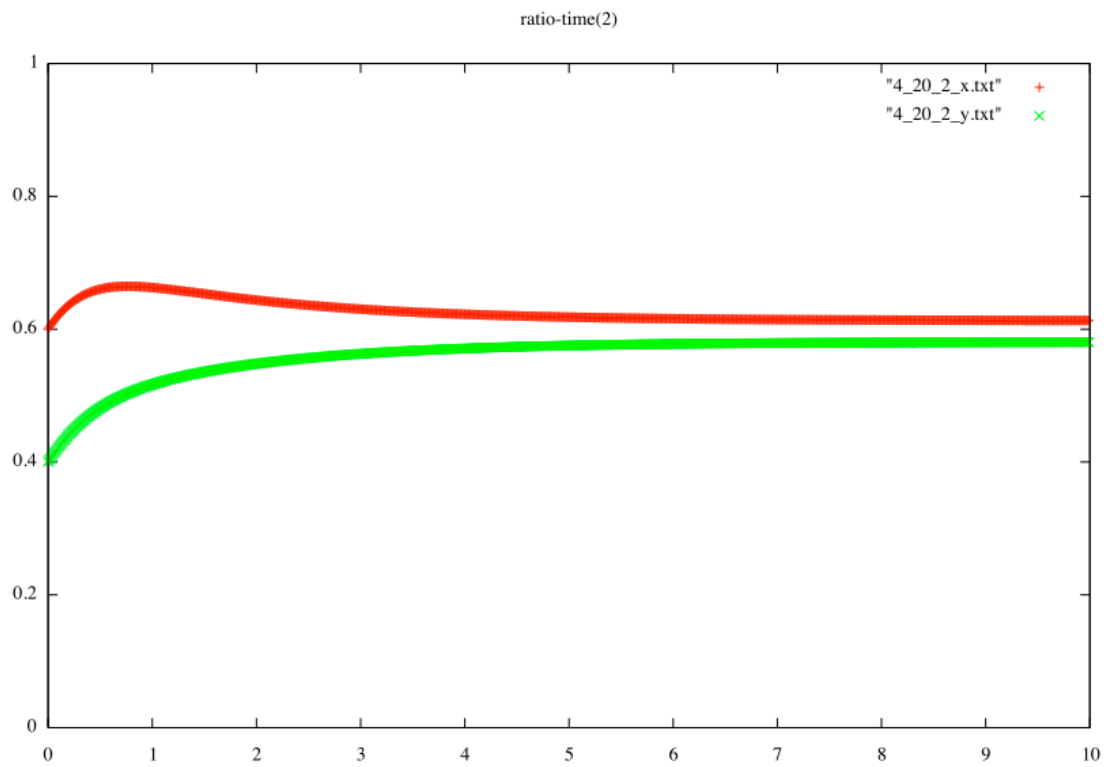


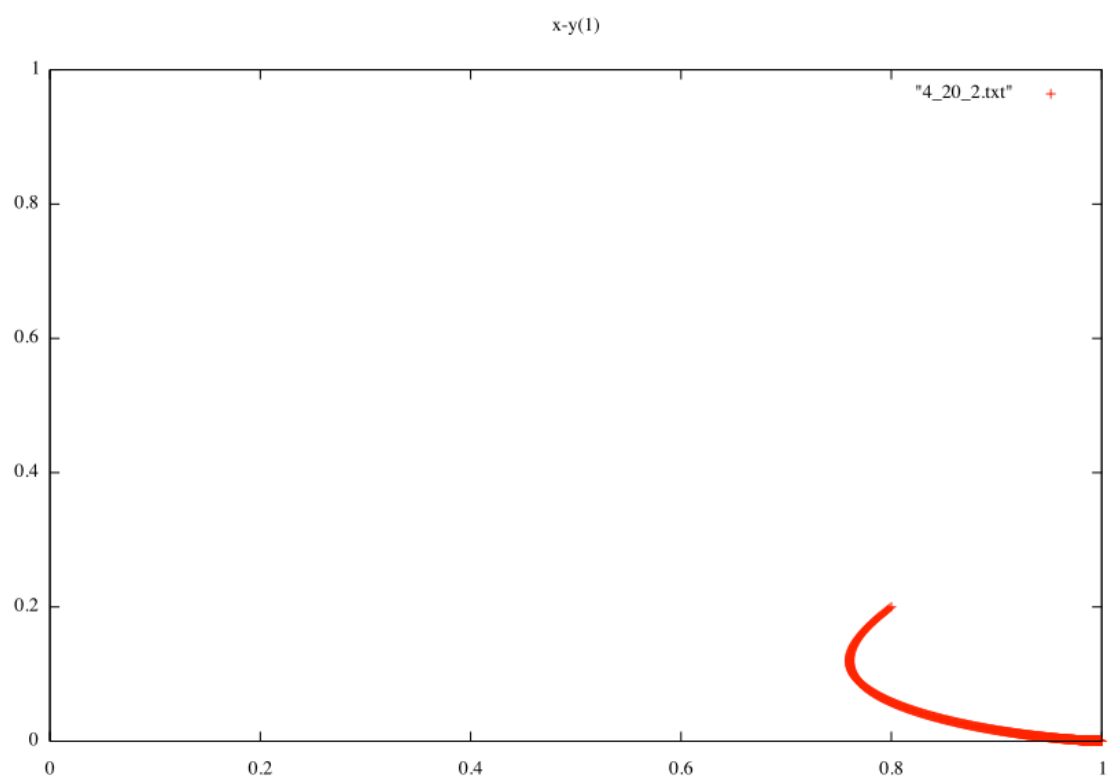
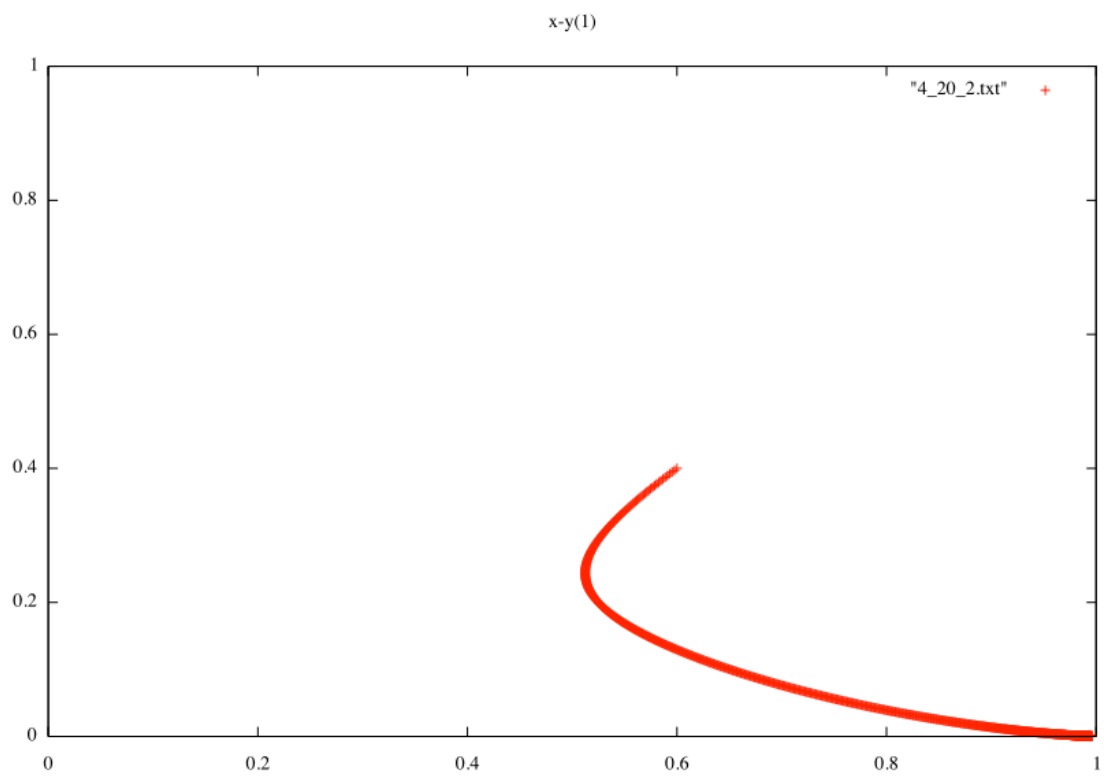
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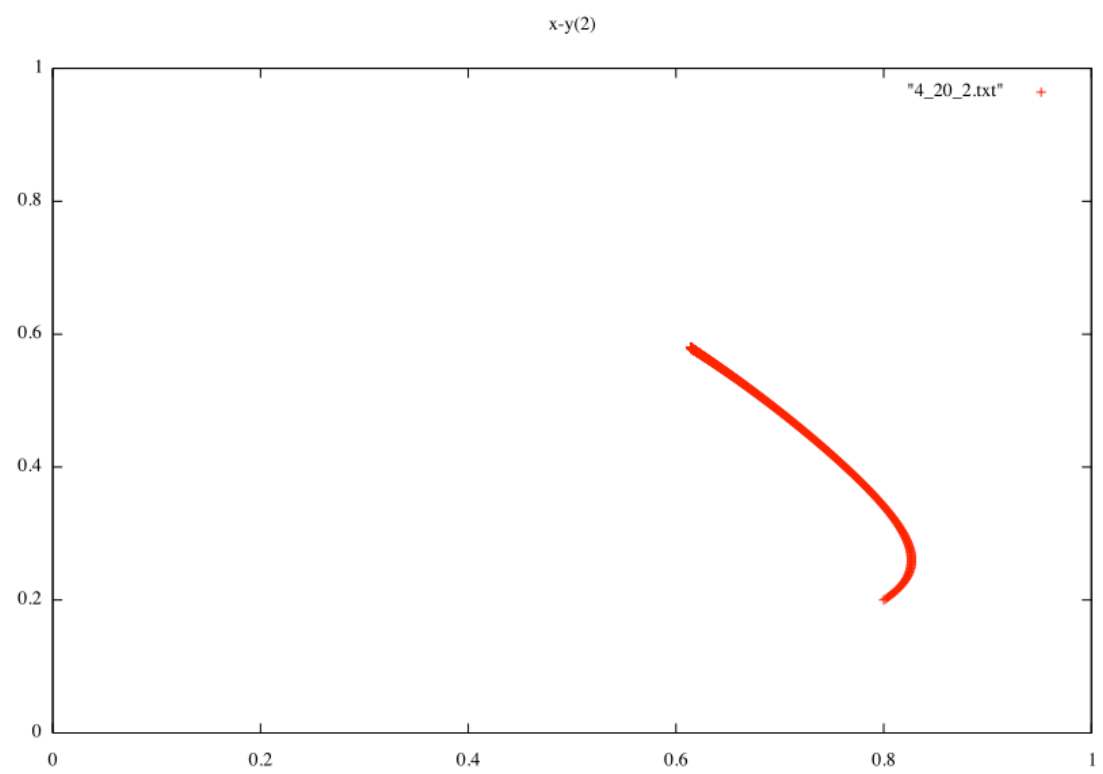
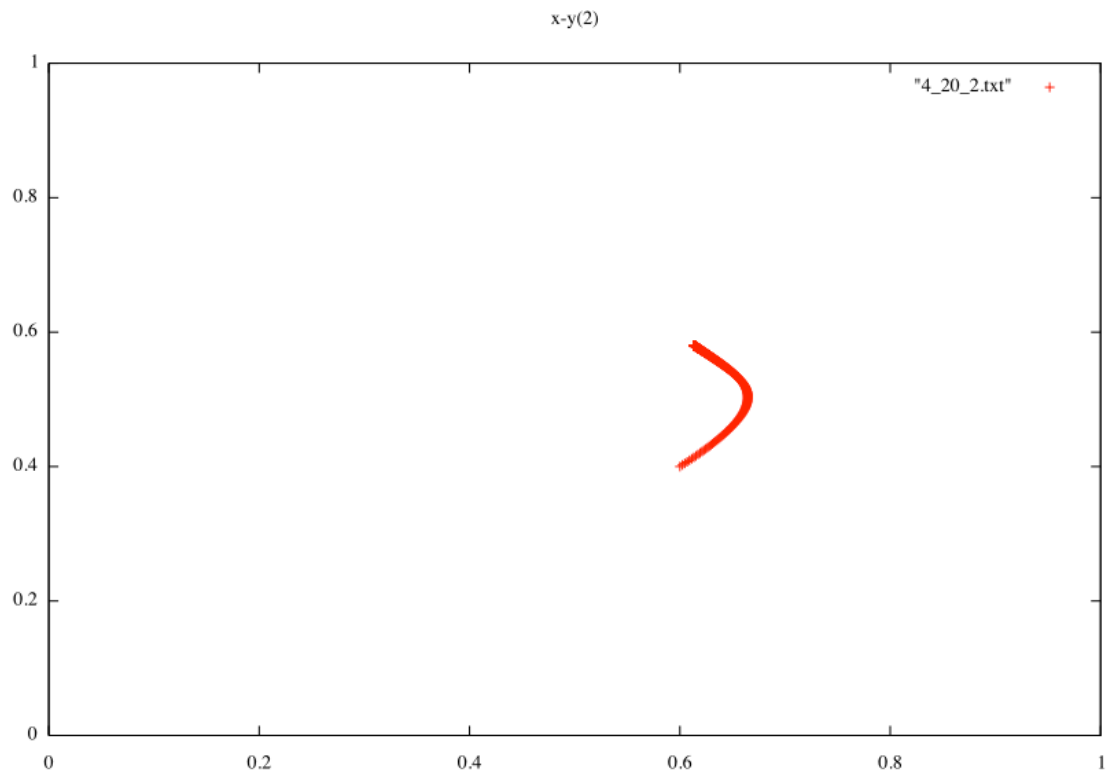
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結果









ソースコード

```
1  #include <stdio.h>
2
3  double lmd = 5;
4
5  double f_x(double c1, double c2, double x, double y, double t) {
6      return c1 * (1 - x) * x - c2 * x * y;
7  }
8
9  double f_y(double c1, double c2, double x, double y, double t) {
10     return c1 * (1 - y) * y - c2 * x * y;
11 }
12
13 int main(void) {
14     double dlt = 0.01;
15     double x = 0.6;
16     double y = 0.4;
17     double t = 0;
18     double k1, k2, k3, k4;
19     double l1, l2, l3, l4;
20
21     double a = 3;
22     double b = 2;
23     double c = 4;
24     double d = 3;
25
26     int i;
27
28     for (i=0; i<1000; i++) {
29         printf("%f %f\n", t, x);
30         k1 = f_x(a, b, x, y, t);
31         l1 = f_y(c, d, x, y, t);
32
33         k2 = f_x(a, b, x + (dlt / 2) * k1, y + (dlt / 2) * l1, t + dlt / 2);
34         l2 = f_y(a, b, x + (dlt / 2) * k1, y + (dlt / 2) * l1, t + dlt / 2);
35
36         k3 = f_x(a, b, x + (dlt / 2) * k2, y + (dlt / 2) * l2, t + dlt / 2);
37         l3 = f_y(a, b, x + (dlt / 2) * k2, y + (dlt / 2) * l2, t + dlt / 2);
38
39         k4 = f_x(a, b, x + dlt * k3, y + dlt * l3, t + dlt);
40         l4 = f_y(a, b, x + dlt * k3, y + dlt * l3, t + dlt);
41
42         x += (dlt / 6) * (k1 + 2*k2 + 2*k3 + k4);
43         y += (dlt / 6) * (l1 + 2*l2 + 2*l3 + l4);
44         t += dlt;
45     }
46 }
47
48
```

(ratio-time(2))