



```
0.9989993291, 0.9990000334, 0.9999997038 ]
```

```
> Orbk(2, z, z[1]·(2 - z[2]), [0, 0], 1000, 1020)  
[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0]
```

(6)

```
> Orbk(2, z, z[1]·(2 - z[2]), [0.001, 0.001], 1000, 1020)  
[1.003977851, 1.055645958, 1.051446756, 0.9929379940, 0.9418545553, 0.9485059378,  
1.003657238, 1.055339626, 1.051479998, 0.9932914882, 0.9421568444, 0.9484773149,  
1.003340236, 1.055035019, 1.051510953, 0.9936410277, 0.9424576314, 0.9484506931,  
1.003026793, 1.054732129, 1.051539673 ]
```

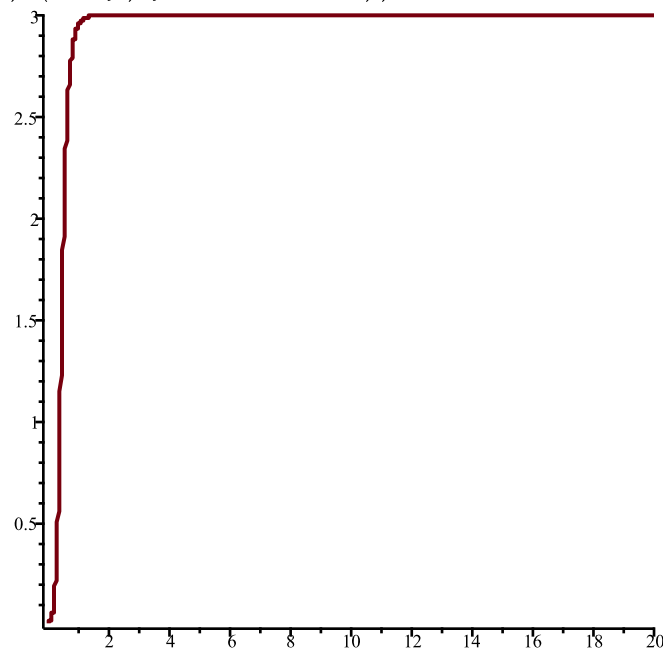
(7)

```
> #This agrees with the result that neither 0 nor 1 is stable.
```

```
> #4
```

```
> #(a) (iii)
```

```
> plot(DisI(y*(3-y)*(5-y), y, 0.01, 0.01, 20));
```





```

> F := x^2*(3-x)*(5-x)*(7-x)
                                     F := x^2 (3-x) (5-x) (7-x)
=
> eval(diff(F,x),x=0);
                                     0
=
> # This implies 0 is unstable.
>
>
> eval(diff(F,x),x=3);
                                     -72
=
> #This implies 3 is stable.
>
>
> eval(diff(F,x),x=5);
                                     100
=
> #5 is not stable.
>
>
> eval(diff(F,x),x=7);
                                     -392
=
> #7 is stable
>
>
>
> #(iii)
>
> plot(Disl(y*(3-y)*(5-y)*(7-y),y,0.01,0.01,20));

```

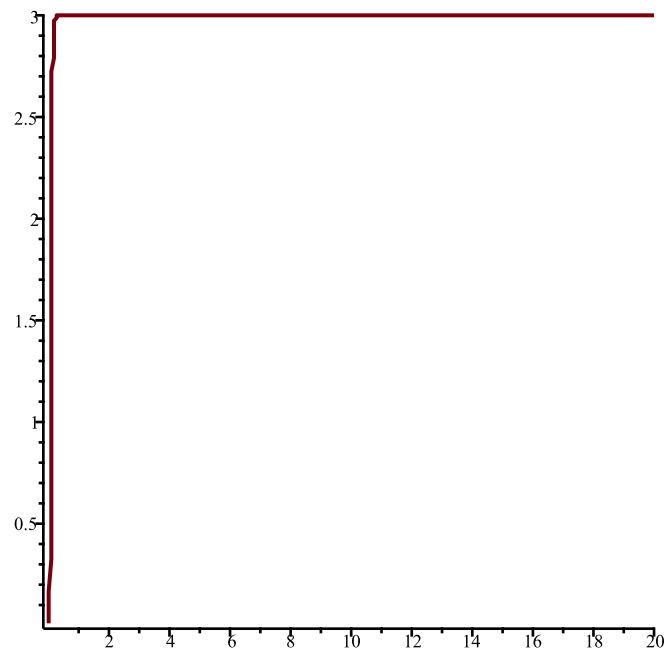
(8)

(9)

(10)

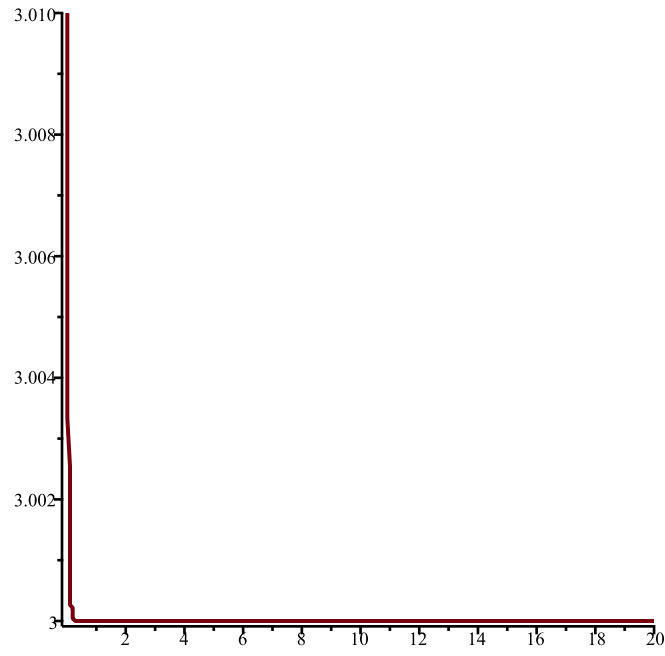
(11)

(12)

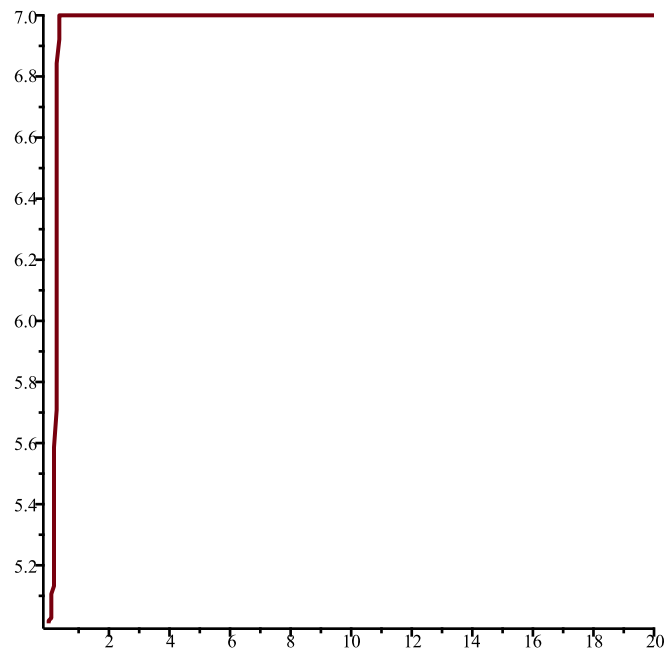


```
>  
>
```

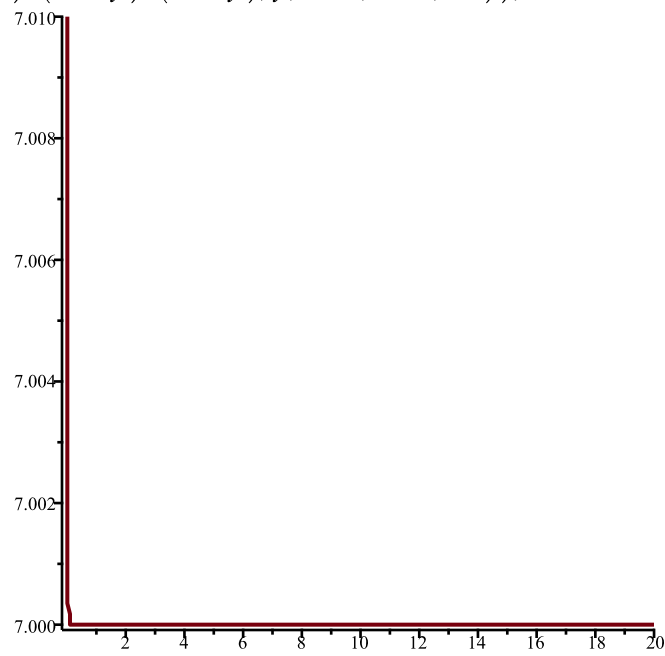
```
> plot(Dis1(y*(3-y)*(5-y)*(7-y), y, 3.01, 0.01, 20));
```



```
> plot(Dis1(y*(3-y)*(5-y)*(7-y), y, 5.01, 0.01, 20));
```



```
> plot(Dis1(y * (3-y) * (5-y) * (7-y), y, 7.01, 0.01, 20));
```



```
>
```