>> newton(@f1,@df1,5,12,0.1)

root =

   1.655544395500930

flag =

    1

iterations =

    3

ans =

   1.655544395500930

>> newton(@f1,@df1,5,12,0.01)

root =

   1.581944920086747

flag =

    1

iterations =

    4

ans =

   1.581944920086747

>> newton(@f1,@df1,5,12,0.001)

root =

   1.579742051372132

```
flag =

     1


iterations =

     5


ans =

   1.579742051372132

>> newton(@f1,@df1,5,12,0.0001)

root =

   1.579742051372132


flag =

     1


iterations =

     5


ans =

   1.579742051372132

>> newton(@f1,@df1,5,12,0.00001)

root =

   1.579742051372132


flag =

     1


iterations =

     5
```

```
ans =

    1.579742051372132

>> newton(@f1,@df1,5,12,0.000001)

root =

    1.579740104332740


flag =

     1


iterations =

     6


ans =

    1.579740104332740

>> newton(@f1,@df1,5,12,0.0000001)

root =

    1.579740104332740


flag =

     1


iterations =

     6


ans =

    1.579740104332740

>> newton(@f1,@df1,5,12,0.00000001)

root =
```

```
    1.579740104332740


flag =

    1


iterations =

    6


ans =

   1.579740104332740

>> newton(@f1,@df1,5,12,0.000000001)

root =

   1.579740104332740


flag =

    1


iterations =

    6


ans =

   1.579740104332740

>> newton(@f1,@df1,5,12,0.0000000001)

root =

   1.579740104332740


flag =

    1
```

```
iterations =

     6


ans =

   1.579740104332740

>> newton(@f1,@df1,5,12,0.00000000001)

root =

   1.579740104332740


flag =

     1


iterations =

     6


ans =

   1.579740104332740

>> newton(@f1,@df1,5,12,0.000000000001)

root =

   1.579740104332740


flag =

     1


iterations =

     6


ans =

   1.579740104332740
```

```
>> newton(@f1,@df1,5,12,0.0000000000001)

root =

   1.579740104331220


flag =

    1


iterations =

    7


ans =

   1.579740104331220

>> newton(@f1,@df1,5,12,0.00000000000001)

root =

   1.579740104331220


flag =

    1


iterations =

    7


ans =

   1.579740104331220

>> newton(@f1,@df1,5,12,0.000000000000001)

root =

   1.579740104331220


flag =
```

```
     1

iterations =

     7

ans =

   1.579740104331220
>> newton(@f1,@df1,5,12,0.0000000000000001)

root =

   1.579740104331220

flag =

     0

iterations =

    12

ans =

   1.579740104331220

>>
```