1a.

C: ▸ Users ▸ asus ▸ Desktop ▸ matlab ▸ Rafał

Current Folder

Name

Zielina i Piwowarczyk.zip
zad2.m
zad1b.m
zad1a.m

Details

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Editor - C:\Users\asus\Desktop\matlab\Rafał\zad1a.m

zad1a.m | zad1b.m | zad2.m

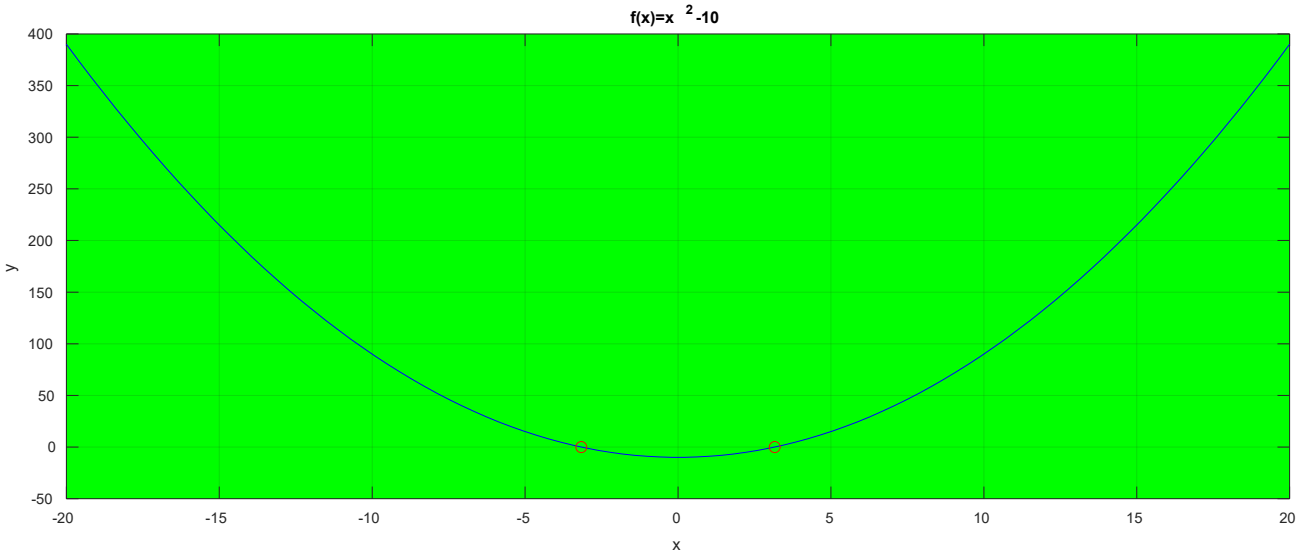
```
function [x,z] = bis(f, x1, x2, r)

X = linspace(x1,x2,100);
Y = 1;
for n = 1:100
    Y(n) = f(X(n));
end

c = x1; d = x2;
a  =  f(x1);  b = f(x2);


    for k  =  1:r

    x  =  (x1 + x2)/2;
    y  =  f(x);
    z = (c + d)/2;
    y2 = f(z);

    if   a*y  < 0
        x2 = x;
    else
        x1 = x;
    end
    if b*y2 > 0
        d = z;
    else
        c = z;
    end
```

Workspace

Name	Value
ans	-3.1623
f	1x1 inline
p	[1,0,-10]
r	[3.1623;-3.1623]

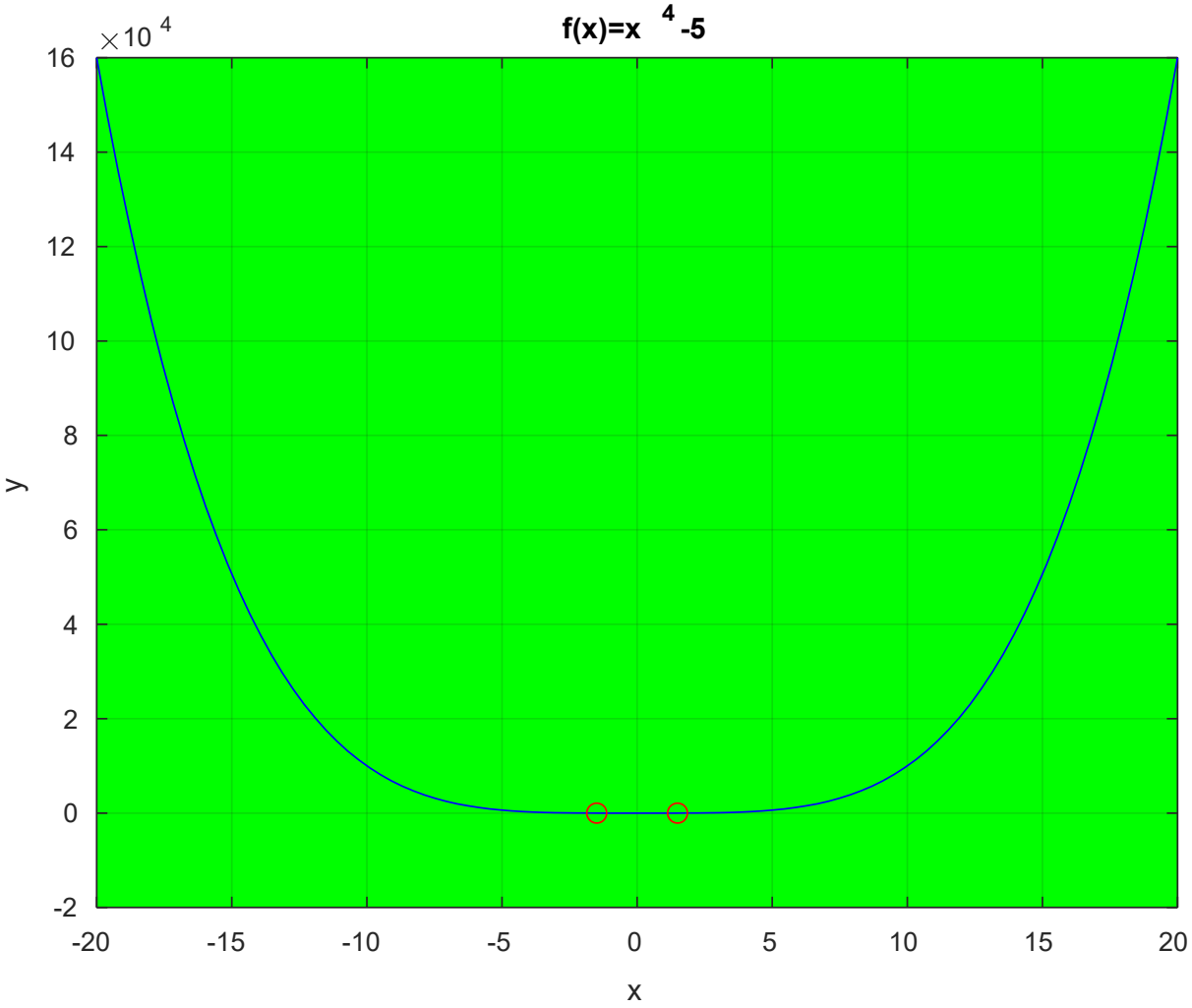
Command Window

UTF-8 | script / bis | Ln 24 Col 16



1b.

```
z = diff(f1(x));
f2 = inline(z);

imax = 10000;
err = 0.00001;
a=20;
X = linspace(-20,a,100);
Y = 1;

for n=1:100
    Y(n) = f1(X(n));

end
for l=0:imax
    b=a;
    a=b-(f1(a)/f2(a));
    if abs(a-b)<err
        break
    end
end

    c = -50;
    for l=0:imax
        d = c;
        c=d-(f1(c)/f2(c));
        if abs(c-d) <err
            break
        end
    end
```



2.

C: ▸ Users ▸ asus ▸ Desktop ▸ matlab ▸ Rafał

Current Folder

Name

Zielina i Piwowarczyk.zip
zad2.m
zad1b.m
zad1a.m

Details

Select a file to view details

Editor - C:\Users\asus\Desktop\matlab\Rafał\zad2.m

zad1a.m | zad1b.m | zad2.m

```
clear all; clc; close all;

syms x;
f=inline('3*(x-9)^4-3*x^3+2*x^2-x-3');
z=diff(f(x));
f1=inline(z);

imax=10000

w=0.0001
iteracje=1;
x0=1;
for k=1:5
    x=20;
    for l=0:imax
        y=x;
        x=y-(f(x)/f1(x));
        if abs(x-y) < w(1,end)
            x0=[x0, x]
            break
        end
    end
```

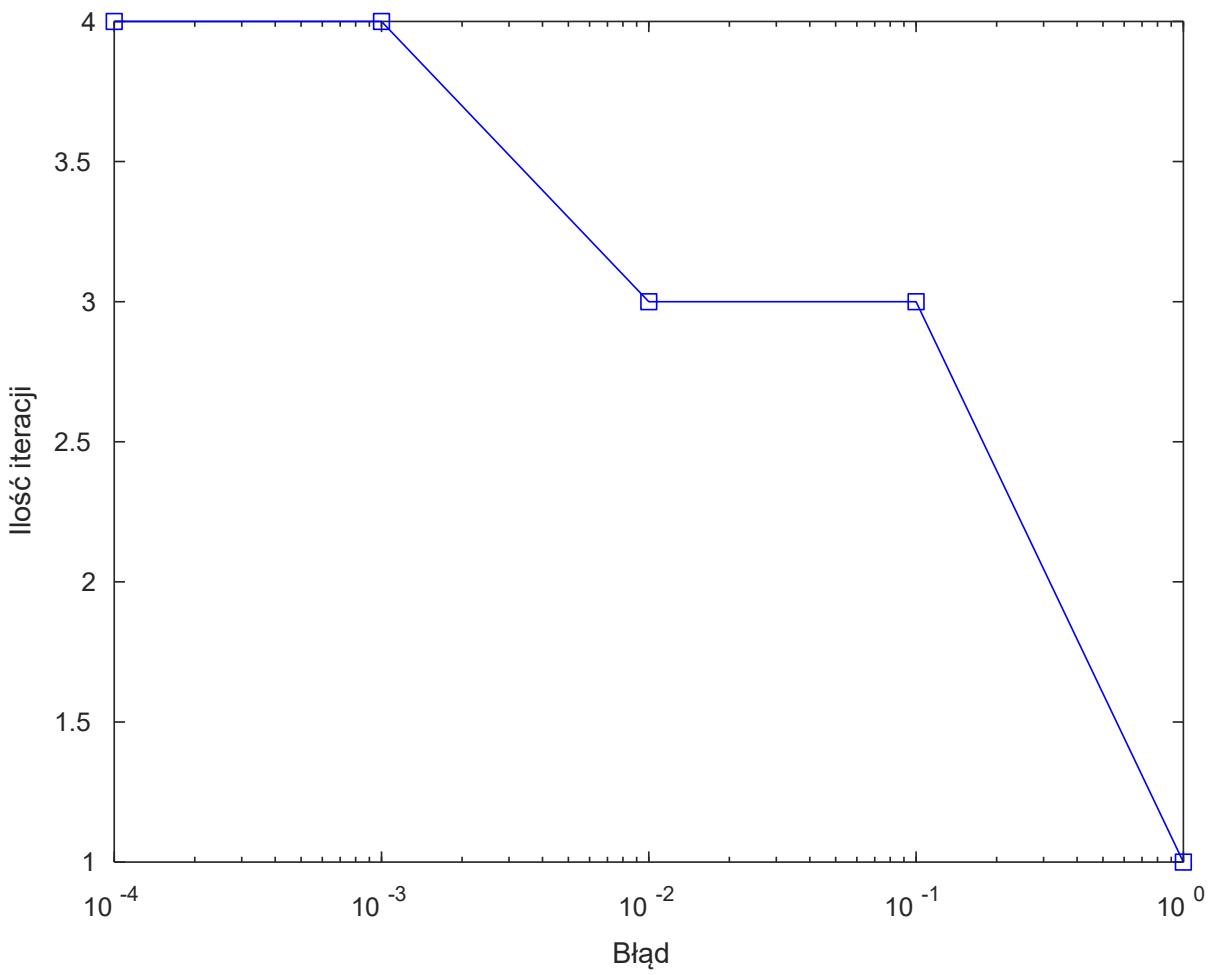
Command Window

```
    17.4625   17.4625   17.4625   17.4625   17.6100


w =

    0.0001    0.0010    0.0100    0.1000    1.0000

>>
```

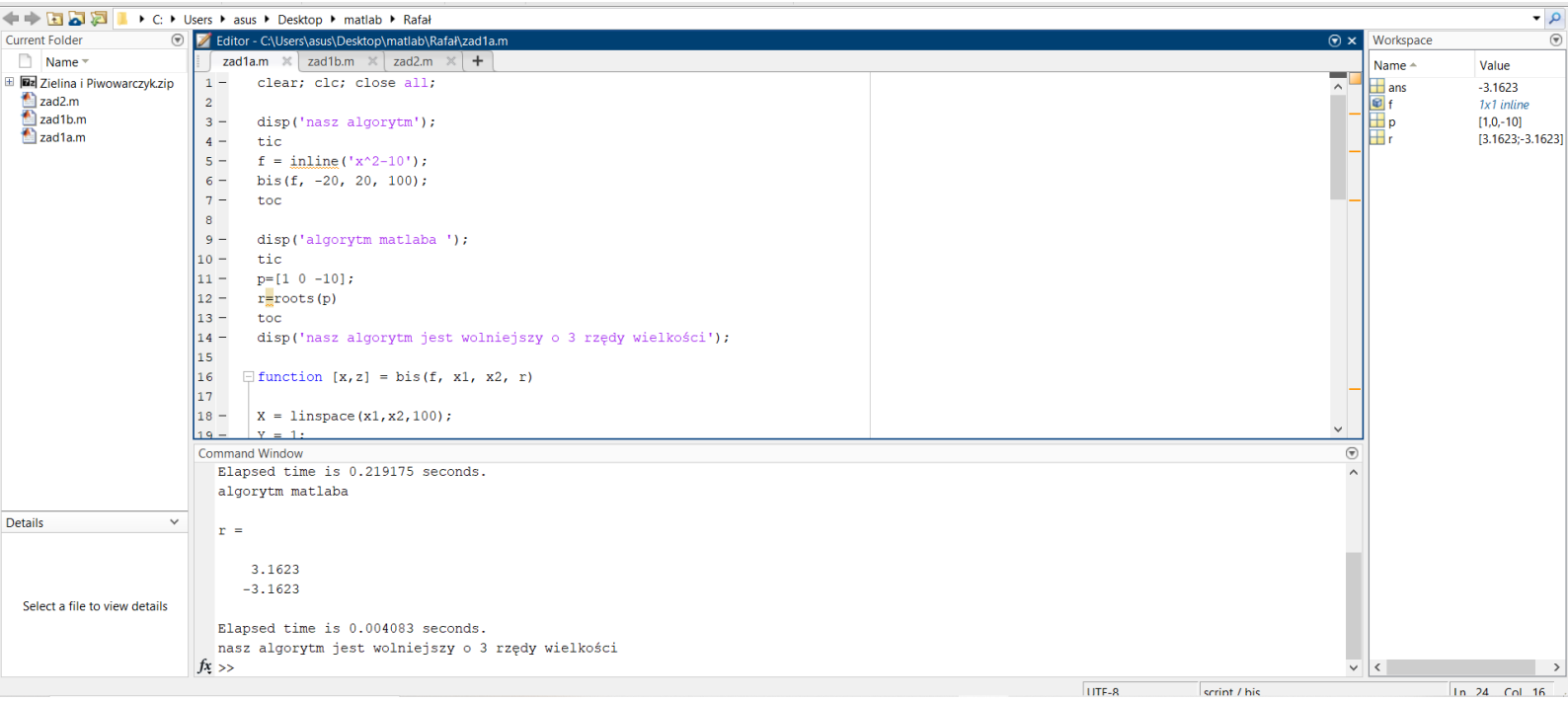
Workspace

Name	Value
f	1x1 inline
f1	1x1 inline
imax	10000
iteracje	[4,4,3,3,1]
k	5
l	1
w	[1.0000e-04,1.00
x	17.6100
x0	[17.4625,17.4625
y	18.3375
z	1x1 sym

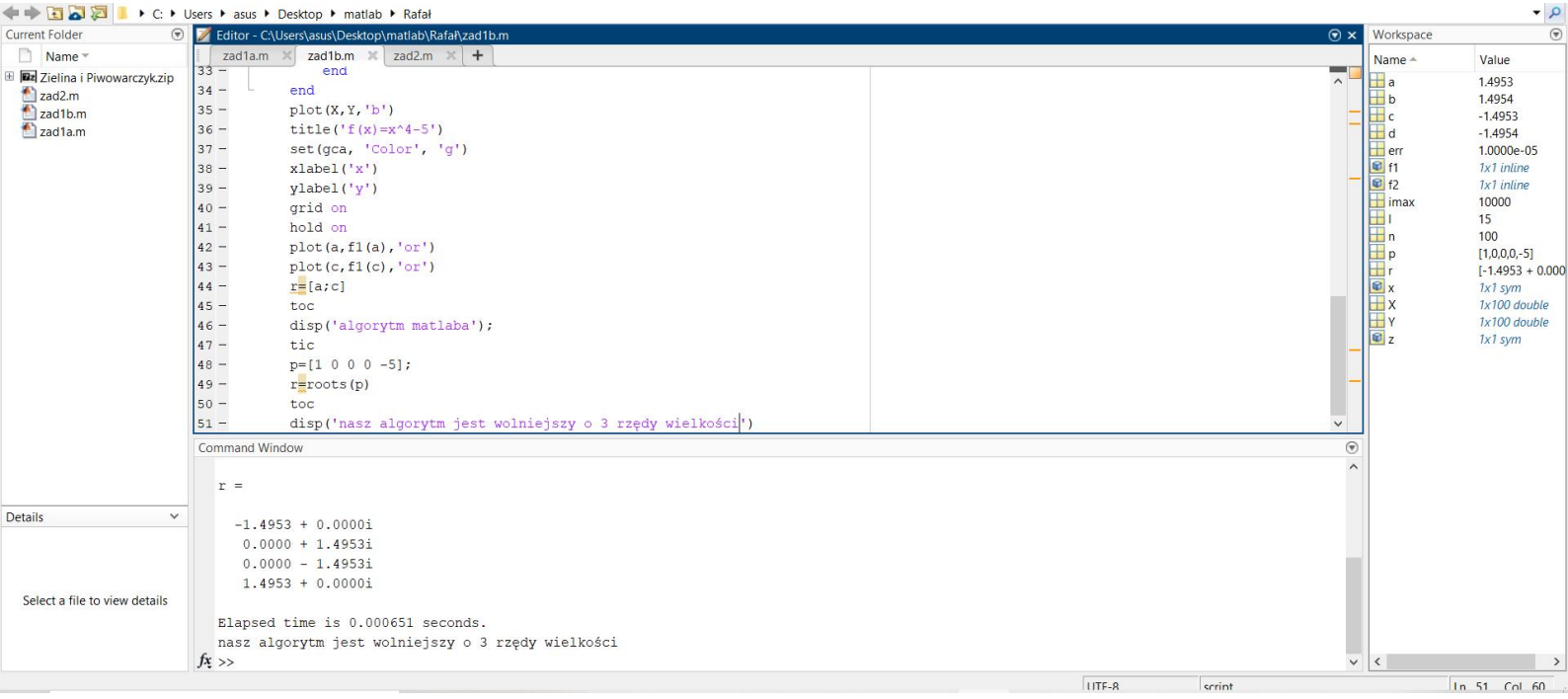
UTF-8 | script | Ln 34 Col 25



3a.



3b.



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Rafał Piwowarczyk