disp('Grupo 5')

Grupo 5

disp('NRC:7543')

NRC:7543

date

ans =

'23-Nov-2021'

clock

ans =

1.0e+03 \*

Columns 1 through 5

2.0210 0.0110 0.0230 0.0230 0.0510

Column 6

0.0328

clc

clear

clc

disp('Funcion Taylor')

Funcion Taylor

[fx,Rx,R,r] = ftaylor('exp(cos(x))',2);

<strong>Impresion de datos.</strong>

<strong>f(x):</strong> exp(cos(x))

<strong>n:</strong> 2

<strong>t(x):</strong> exp(cos(c)) - x^2\*((exp(cos(c))\*cos(c))/2 - (exp(cos(c))\*sin(c)^2)/2)\*(c - x)^2 + x\*exp(cos(c))\*sin(c)\*(c - x)

<strong>Rt(x):</strong> -(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

<strong> Impresion de datos.

</strong><strong>f(x): </strong>exp(cos(x))

<strong>n: </strong> 2

<strong>t(x): </strong>exp(cos(c)) - x^2\*((exp(cos(c))\*cos(c))/2 - (exp(cos(c))\*sin(c)^2)/2)\*(c - x)^2 + x\*exp(cos(c))\*sin(c)\*(c - x)

<strong>Rt(x): </strong>-(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

Elapsed time is 0.708588 seconds.

{Output argument "varargout{3}" (and maybe others) not

assigned during call to "ftaylor".

}

disp('Aqui va la fig 1')

Aqui va la fig 1

Gráfico

Descripción generada automáticamente

[fx,Rx] = ftaylor('exp(cos(x))',2);

<strong>Impresion de datos.</strong>

<strong>f(x):</strong> exp(cos(x))

<strong>n:</strong> 2

<strong>t(x):</strong> exp(cos(c)) - x^2\*((exp(cos(c))\*cos(c))/2 - (exp(cos(c))\*sin(c)^2)/2)\*(c - x)^2 + x\*exp(cos(c))\*sin(c)\*(c - x)

<strong>Rt(x):</strong> -(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

<strong> Impresion de datos.

</strong><strong>f(x): </strong>exp(cos(x))

<strong>n: </strong> 2

<strong>t(x): </strong>exp(cos(c)) - x^2\*((exp(cos(c))\*cos(c))/2 - (exp(cos(c))\*sin(c)^2)/2)\*(c - x)^2 + x\*exp(cos(c))\*sin(c)\*(c - x)

<strong>Rt(x): </strong>-(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

Elapsed time is 0.847435 seconds.

[fx,Rx,R,r] = ftaylor('exp(cos(x))',2,6);

1

<strong> Impresion de datos.

</strong><strong>f(x): </strong>exp(cos(x))

<strong>n: </strong> 2

<strong>t(x): </strong>exp(cos(6)) - x^2\*(x - 6)^2\*((cos(6)\*exp(cos(6)))/2 - (exp(cos(6))\*sin(6)^2)/2) - x\*exp(cos(6))\*sin(6)\*(x - 6)

<strong>Rt(x): </strong>-(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

<strong>c: </strong> 6

<strong>R: </strong> 1

<strong>r: </strong> 0

Elapsed time is 1.268188 seconds.

disp('Aqui va la fig 2')

Aqui va la fig 2

Gráfico, Gráfico de líneas

Descripción generada automáticamente

[fx,Rx,R,r] = ftaylor('exp(cos(x))',2,8);

1

<strong> Impresion de datos.

</strong><strong>f(x): </strong>exp(cos(x))

<strong>n: </strong> 2

<strong>t(x): </strong>exp(cos(8)) - x^2\*(x - 8)^2\*((cos(8)\*exp(cos(8)))/2 - (exp(cos(8))\*sin(8)^2)/2) - x\*exp(cos(8))\*sin(8)\*(x - 8)

<strong>Rt(x): </strong>-(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

<strong>c: </strong> 8

<strong>R: </strong> 1

<strong>r: </strong> 0

Elapsed time is 1.177980 seconds.

disp('Aqui va la fig 3')

Aqui va la fig 3

Gráfico, Gráfico de líneas

Descripción generada automáticamente

[fx,Rx,R,r] = ftaylor('exp(cos(x))',2,8,2,3);

{Error using <a href="matlab:matlab.internal.language.introspective.errorDocCallback('symengine')" style="font-weight:bold">symengine</a>

Unable to convert expression into double array.

Error in <a href="matlab:matlab.internal.language.introspective.errorDocCallback('sym/double', 'C:\Program Files\Polyspace\R2020a\toolbox\symbolic\symbolic\@sym\sym.m', 698)" style="font-weight:bold">sym/double</a> (<a href="matlab: opentoline('C:\Program Files\Polyspace\R2020a\toolbox\symbolic\symbolic\@sym\sym.m',698,0)">line 698</a>)

Xstr = mupadmex('symobj::double', S.s,

0);

Error in <a href="matlab:matlab.internal.language.introspective.errorDocCallback('ftaylor>taylor4', 'C:\Users\ismae\OneDrive\Documentos\MATLAB\Met. Numericos\Grupal\Serie Taylor\ftaylor.m', 261)" style="font-weight:bold">ftaylor>taylor4</a> (<a href="matlab: opentoline('C:\Users\ismae\OneDrive\Documentos\MATLAB\Met. Numericos\Grupal\Serie Taylor\ftaylor.m',261,0)">line 261</a>)

sigma(i+1)=sum(double(s));

Error in <a href="matlab:matlab.internal.language.introspective.errorDocCallback('ftaylor', 'C:\Users\ismae\OneDrive\Documentos\MATLAB\Met. Numericos\Grupal\Serie Taylor\ftaylor.m', 55)" style="font-weight:bold">ftaylor</a> (<a href="matlab: opentoline('C:\Users\ismae\OneDrive\Documentos\MATLAB\Met. Numericos\Grupal\Serie Taylor\ftaylor.m',55,0)">line 55</a>)

[varargout{1},varargout{2},varargout{3},varargout{4}]

= taylor4(fx,n,c,e,N);

}

[fx,Rx] = ftaylor('exp(cos(x))',2);

<strong>Impresion de datos.</strong>

<strong>f(x):</strong> exp(cos(x))

<strong>n:</strong> 2

<strong>t(x):</strong> exp(cos(c)) - x^2\*((exp(cos(c))\*cos(c))/2 - (exp(cos(c))\*sin(c)^2)/2)\*(c - x)^2 + x\*exp(cos(c))\*sin(c)\*(c - x)

<strong>Rt(x):</strong> -(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

<strong> Impresion de datos.

</strong><strong>f(x): </strong>exp(cos(x))

<strong>n: </strong> 2

<strong>t(x): </strong>exp(cos(c)) - x^2\*((exp(cos(c))\*cos(c))/2 - (exp(cos(c))\*sin(c)^2)/2)\*(c - x)^2 + x\*exp(cos(c))\*sin(c)\*(c - x)

<strong>Rt(x): </strong>-(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

Elapsed time is 0.607654 seconds.

[fx,Rx,R,r] = ftaylor('exp(cos(x))',2,8);

1

<strong> Impresion de datos.

</strong><strong>f(x): </strong>exp(cos(x))

<strong>n: </strong> 2

<strong>t(x): </strong>exp(cos(8)) - x^2\*(x - 8)^2\*((cos(8)\*exp(cos(8)))/2 - (exp(cos(8))\*sin(8)^2)/2) - x\*exp(cos(8))\*sin(8)\*(x - 8)

<strong>Rt(x): </strong>-(x^3\*(exp(cos(e))\*cos(e) - exp(cos(e))\*sin(e)^2))/6

<strong>c: </strong> 8

<strong>R: </strong> 1

<strong>r: </strong> 0

Elapsed time is 0.999772 seconds.

diary off