x=1:2:8

x =

 1 3 5 7

x=1:4

x =

 1 2 3 4

x=8:-2:4

x =

 8 6 4

x=8:-2:10

x =

 Empty matrix: 1-by-0

%graficar x^2 -2/x de 1 a 6

x=1:0.01:6;

y=x.^2-2./x;

plot(x,y)

a=linspace(2,6,5)

a =

 2 3 4 5 6

a=linspace(2,6); %100 puntos

length(a)

ans =

 100

x=2:3:9

x =

 2 5 8

x(2)

ans =

 5

y=[ 7 x x(3)]

y =

 7 2 5 8 8

y(1:2:5)

ans =

 7 5 8

y(1:2:length(y))

ans =

 7 5 8

y(1:2:end)

ans =

 7 5 8

y(1:end)

ans =

 7 2 5 8 8

y(:)

ans =

 7

 2

 5

 8

 8

y

y =

 7 2 5 8 8

y(4)=[]

y =

 7 2 5 8

y(1:2:3)=[]

y =

 2 8

y=[y [3 1 9]]

y =

 2 8 3 1 9

y(7)

??? Index exceeds matrix dimensions.

y(7)=4

y =

 2 8 3 1 9 0 4

y(2:2:end)=7

y =

 2 7 3 7 9 7 4

x=[5 6 6]

x =

 5 6 6

y(2:2:end)=x

y =

 2 5 3 6 9 6 4

y(y>5)

ans =

 6 9 6

y(y>5)=y(y>5)+1

y =

 2 5 3 7 10 7 4

Clc %Calculo de una sumatoria de factoriales

x=1:9;

n=x.^2;

n(2:2:end)=-n(2:2:end);

d=factorial(x);

S=sum(n./d)

S =

 2.4802e-005

%Matrices

d=ones(1,5)

d =

 1 1 1 1 1

d=ones(5)

d =

 1 1 1 1 1

 1 1 1 1 1

 1 1 1 1 1

 1 1 1 1 1

 1 1 1 1 1

d=zeros(1,5)

d =

 0 0 0 0 0

clc

x=1:9;

n=x.^2;

d=factorial(x);

f=ones(1,9);

f(2:2:end)=-f(2:2:end);

S=sum((n./d).\*f)

S =

 2.4802e-005

x=1:10; %Los numeradores son de 1 a 10

d=factorial(2\*x);

y=x./d;

y(2:2:end)=-y(2:2:end);

S=sum(y)

S =

 0.4207

format long

clc

x=ones(1,10); %Los numeradores son puros 1

z=1:10;

d=factorial(2\*z);

y=x./d;

y(2:2:end)=-y(2:2:end);

S=sum(y)

S =

 0.459697694131860

%n: notas de cursos

%c: creditos de cursos

clc

n=[ 12 10 18 7 15]

n =

 12 10 18 7 15

c=[ 3 2 4 1 5]

c =

 3 2 4 1 5

pp=sum(n.\*c)/sum(c) %pp: promedio ponderado

pp =

 14

%ppa: promedio ponderado de aprobados

sum((n.\*c).\*(n>=10))

ans =

 203

ppa=sum((n.\*c).\*(n>=10))/sum(c.\*(n>=10))

ppa =

 14.500000000000000

na=n(n>=10)

na =

 12 10 18 15

ca=c(n>=10)

ca =

 3 2 4 5

ppa=sum(na.\*ca)/sum(ca)

ppa =

 14.500000000000000

%otra forma, con find

clc

i=find(n>=10)

i =

 1 2 3 5

ppa=sum(n(i).\*c(i))/sum(c(i))

ppa =

 14.500000000000000

%que curso (numero) tiene mayor nota

n

n =

 12 10 18 7 15

max(n)

ans =

 18

[m i]=max(n)

m =

 18

i =

 3

n(1)=18

n =

 18 10 18 7 15

[m i]=max(n)

m =

 18

i =

 1

p=find(n==max(n))

p =

 1 3

clc

a=[1 3 2 ; 4 2 5]

a =

 1 3 2

 4 2 5

a(2,1)

ans =

 4

a(2,:)

ans =

 4 2 5

a(2,1:2:3)

ans =

 4 5

a=[1 3 2 ; 4 2 5]

a =

 1 3 2

 4 2 5

sum(a)

ans =

 5 5 7

a'

ans =

 1 4

 3 2

 2 5