# Question 10.1

## Code

% Q10.1

clc

clear all

A=[1 3 5]

B=[-3 -2 4]

part\_a\_Left=A.\*B

part\_a\_Right=B.\*A

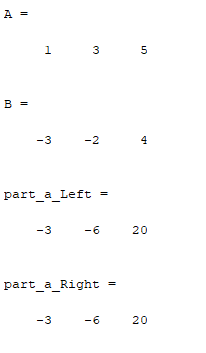
A=[0 -1 -4 -8]

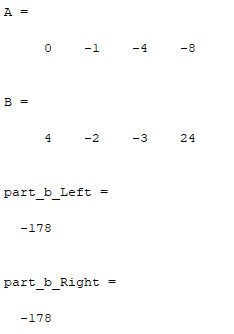
B=[4 -2 -3 24]

part\_b\_Left=dot(A,B)

part\_b\_Right=dot(B,A)

## Output





# Question 10.7

## Code

% Q10.7

clc

clear all

A=[12 4;3 -5]

B=[2 12; 0 0]

part\_a\_Left=A\*B

part\_a\_Right=B\*A

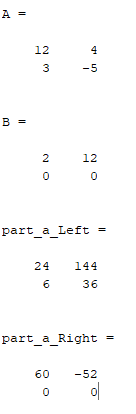
A=[1 3 5; 2 4 6]

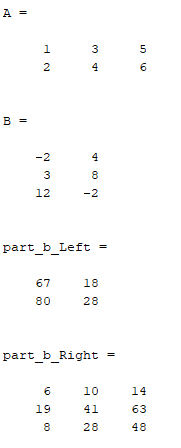
B=[-2 4;3 8; 12 -2]

part\_b\_Left=A\*B

part\_b\_Right=B\*A

## Output





# Question 10.14

## Code

clc

clear all

% Q10.14

A=[2 -1; 2 5]

[r c]=size(A);

if (r-c==0)

det\_A=det(A)

else

disp('matrix is not square')

end

if(det\_A==0)

disp('A Has No Inverse')

else

inv\_A=inv(A)

end

B=[4 2; 2 1]

[r c]=size(B);

if (r-c==0)

det\_B=det(B)

else

disp('matrix is not square')

end

if(det\_B==0)

disp('B Has No Inverse')

else

inv\_B=inv(B)

end

C=[2 0; 1 2; 5 -4]

[r c]=size(C);

if (r-c==0)

det\_B=det(C)

else

disp('matrix is not square')

end

if(det\_B==0)

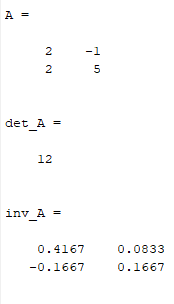
disp('C Has No Inverse')

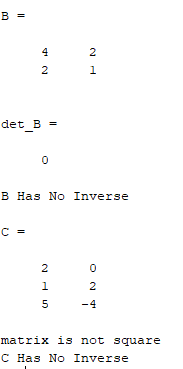
else

inv\_C=inv(C)

end

## Output





# Question 10.18

## Code

% Q10.18

clc

clear

A=[-2 1;1 1];

B=[3;10];

part\_a\_inv=inv(A)\*B;

disp('Inverse Method')

x=part\_a\_inv(1)

y=part\_a\_inv(2)

part\_a\_div=A\B;

disp('Matrix Left Division')

x=part\_a\_div(1)

y=part\_a\_div(2)

A=[5 3 -1;3 2 1; 4 -1 3];

B=[10;4;12];

part\_b\_inv=inv(A)\*B;

disp('Inverse Method')

x=part\_b\_inv(1)

y=part\_b\_inv(2)

z=part\_b\_inv(3)

part\_b\_div=A\B;

disp('Matrix Left Division')

x=part\_b\_div(1)

y=part\_b\_div(2)

z=part\_b\_div(3)

A=[3 1 1 1;1 -3 7 1;2 2 -3 4; 1 1 1 1];

B=[24;12;17;0];

part\_c\_inv=inv(A)\*B;

disp('Inverse Method')

x=part\_c\_inv(1)

y=part\_c\_inv(2)

z=part\_c\_inv(3)

w=part\_c\_inv(4)

part\_c\_div=A\B;

disp('Matrix Left Division')

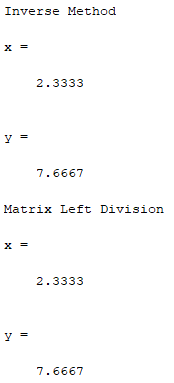
x=part\_c\_div(1)

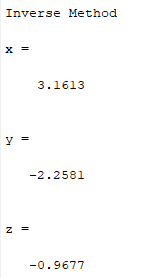
y=part\_c\_div(2)

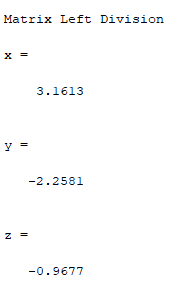
z=part\_c\_div(3)

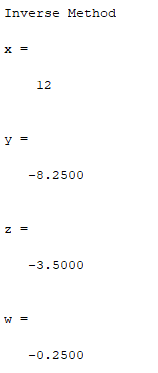
w=part\_c\_div(4)

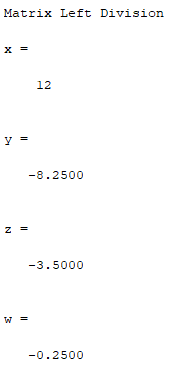
## Output











# Question 10.15

## Code

% Q10.15

clc

clear all

r = [10 10\*sqrt(3) 0];

F = [0 -200 0];

M = cross(r,F)

## Output

