**Exercise 1**

rA1=[1,4,2];rA2=[2,5,8];rA3=[3,6,9];A=[rA1;rA2;rA3]

A =

1 4 2

2 5 8

3 6 9

rB1=[1,2,3];rB2=[4,5,6];rB3=[7,8,9];B=[rB1;rB2;rB3]

B =

1 2 3

4 5 6

7 8 9

rb1=[4];rb2=[23];rb3=[27];b=[rb1;rb2;rb3]

b =

4

23

27

rc=[4,3,2];c=[rc]

c =

4 3 2

rd1=[1];rd2=[2];rd3=[3];d=[rd1;rd2;rd3]

d =

1

2

3

**Exercise 1A**

A\*B

ans =

31 38 45

78 93 108

90 108 126

B\*A

ans =

14 32 45

32 77 102

50 122 159

c\*B

ans =

30 39 48

A\*d

ans =

15

36

42

**Exercise 1B**

C=[A B]

C =

1 4 2 1 2 3

2 5 8 4 5 6

3 6 9 7 8 9

D=[B;c]

D =

1 2 3

4 5 6

7 8 9

4 3 2

**Exercise 1C**

x=A\b

x =

2

-1

3

**Exercise 1D**

A(2,3)=0

A =

1 4 2

2 5 0

3 6 9

**Exercise 1E**

A\_ext=A(3,:)

A\_ext =

3 6 9

**Exercise 1F**

B(3,:)=[]

B =

1 2 3

4 5 6

**Exercise 2A**

Nterms(3,(1/2),10)

NTerms =

8.9971

ans =

8.9971

**Exercise 2B**

Summing(3,(1/2),10)

ans =

5.9941

**Exercise 3A**

count=1;

k = 2

for i=1:k:19;

count = (count \* k);

end

count

k =

2

count =

1024

**Exercise 3B**

prod(1:2:19)

ans =

654729075

**Exercise 4**

array=[];

i=1;

v=2^i;

while v<1000;

array=[array v]

i=i+1;

v = 2^i

end

array

array =

2

v =

4

array =

2 4

v =

8

array =

2 4 8

v =

16

array =

2 4 8 16

v =

32

array =

2 4 8 16 32

v =

64

array =

2 4 8 16 32 64

v =

128

array =

2 4 8 16 32 64 128

v =

256

array =

2 4 8 16 32 64 128 256

v =

512

array =

2 4 8 16 32 64 128 256 512

v =

1024

array =

2 4 8 16 32 64 128 256 512

**Exercise 5**

Piecewise(1)

ans =

2

Piecewise(4)

ans =

54.5982

Piecewise(7)

ans =

1.0966e+003

Piecewise(10)

the function is undefined at x = 10