

Q1:

```
clear
```

```
clc
```

```
A=input('Enter matrix here: ');
```

```
[r,c]=size(A);
```

```
d=1;
```

```
c=1;
```

```
b=1;
```

```
for i=1:(r*c)
```

```
    if A(i)<-5
```

```
        D(d)=A(i);
```

```
        d=d+1;
```

```
    elseif and(A(i)>=-5,A(i)<=5)
```

```
        C(c)=A(i);
```

```
        c=c+1;
```

```
    elseif A(i)>5
```

```
        B(b)=A(i);
```

```
        b=b+1;
```

```
    endif
```

```
end
```

```
B
```

```
C
```

```
D
```

Q2:

```
clear
```

```
clc
```

```
A=input('Enter the matrix here: ');
```

```

a=input('Enter the number to calculate the sequences in matrix here: ');
[r,c]=size(A);
repeat=0;
for i=1:(r*c)
    if A(i)==a
        repeat=repeat+1;
    endif
end
repeat

```

Q3:

```

clear
clc
A=input('Enter matrix A here: ');
B=input('Enter matrix B here: ');
[ra,ca]=size(A);
[rb,cb]=size(B);
if and(ra==rb,ca==cb)
    for i=1:ra
        for j=1:ca
            if A(i,j)>=B(i,j)
                C(i,j)=B(i,j);
            elseif B(i,j)>A(i,j)
                C(i,j)=A(i,j);
            endif
        endfor
    endfor
end
C

```

Q4:

```

clear
clc
syms x
a = input('Enter a here: ');
b = input('Enter b here: ');
n = input('Enter n here: ');
h=(b-a)/n;
x = zeros(1,n+1);
x(1) = a;
x(n+1) = b;
p = 0;
q = 0;
f = input('Enter f(x) here: ');
for i = 2:n
    x(i) = a + (i-1)*h;
end
for i = 2:((n+1)/2) - 1
    q = q + (subs(f,x,(2*i)));
end
for i = 2:(n+1)/2
    p = p + (subs(f,x,(2*i - 1)));
end
x = (h/3)*(subs(f,x,(a)) + 2*q + 4*p + subs(f,x,(b)))

```

Q5:

```

clear
clc
A=input('Enter the matrix here: ');
[r,c]=size(A);
sum=0;
for i=1:(r*c)

```

```

    sum=sum+A(i);
end
avg=sum/(r*c);
s2=0;
for i=1:(r*c)
    s2=s2+((A(i)-avg)^2);
end
s=sqrt(s2/(r*c))

```

Q6:

```

clear
clc
syms a x b c
l=int((a*(x^2)+b*x+c),x)
A=input('Enter a here: ');
B=input('Enter b here: ');
C=input('Enter c here: ');
IS=subs(l,{a,b,c},{A,B,C})
ISS=solve(IS,x)
[r,c]=size(ISS);
numberOfAnswers=r*c

```

Q8:

```

clc
n=input('Enter n here: ');
odd=0;
even=0;
j=1;
for i=1:2:n
    if mod(j,2)==0

```

```
    odd=odd-i;
else
    odd=odd+i;
endif
j=j+1;
end
for i=2:2:n
    if mod(j,2)==0
        odd=odd-i;
    else
        odd=odd+i;
    endif
    j=j+1;
end
y=even+odd
```