q.1 code

```
E=8.854*(10^(-12));
c_cell=cell(2,3);
d=[0.003 0.004 0.005 0.01];
L=[1 2 3];
r=[0.001 0.002 0.003];

c_cell={"d","L","r";d,L,r};

C=(pi*E*c_cell{2,2}(2))/log((c_cell{2,1}(3)-
c_cell{2,3}(1))/c_cell{2,3}(1));
```

q.1 answer

	1	2	3
1	"d"	"L"	"r"
2	[0.0030,0.0040,0.0050,0.0100]	[1,2,3]	[1.0000e-03,0.0020,0.0030]

```
C =

    4.0130e-11
```

q.2 code

```
%%problem condition is invalid. So I solve it with 10 elements not 9.
vctD=[0:3:27]
vctDop=fliplr(vctD)
```

q.2 answer

```
vctD =

     0     3     6     9    12    15    18    21    24    27

vctDop =

    27    24    21    18    15    12     9     6     3     0
```

q.3 code

```
H=[1.25:0.25:2.75;1 2 3 1 2 3 4;45:-5:15];
%%a
G([1 2],:)=[H(1,1:3) H(1,6:7);H(3,3:7)]
%%b
K(:,[1 2 3 4])=H(:,[2 3 5 7]);
K=K'
```

q.3 answer

G =

1.2500	1.5000	1.7500	2.5000	2.7500
35.0000	30.0000	25.0000	20.0000	15.0000

K =

1.5000	2.0000	40.0000
1.7500	3.0000	35.0000
2.2500	2.0000	25.0000
2.7500	4.0000	15.0000

q.4 code

```
V0=24;R=3800;C=4000*(10^-6);t0=R*C;
time=0:2:20;
Vc=V0*(1-exp((-time)/t0));
i=V0*exp((-time)/t0)/R;
table=vertcat(time,Vc,i)'
```

q.4 answer

table =

0	0	0.0063
2.0000	2.9590	0.0055
4.0000	5.5531	0.0049
6.0000	7.8274	0.0043
8.0000	9.8213	0.0037
10.0000	11.5694	0.0033
12.0000	13.1020	0.0029
14.0000	14.4456	0.0025
16.0000	15.6236	0.0022
18.0000	16.6563	0.0019

20.0000   17.5617   0.0017

q.5 code

```
left=[−4 3 1;5 6 −2;2 −5 4.5];
right=[−18.2;−48.8;92.5];
left\right
```

q,5 answer

ans =

    2.8000

   -6.4000

   12.2000

q.6 code

```
mixes = struct('Peanuts', [], 'Almonds', [], 'Walnuts', [], 'Raisins', [],
'M_Ms', []);

mixes(1).Peanuts = 3; mixes(1).Almonds = 1; mixes(1).Walnuts = 1;
mixes(1).Raisins = 2; mixes(1).M_Ms = 1;
mixes(2).Peanuts = 1; mixes(2).Almonds = 2; mixes(2).Walnuts = 1;
mixes(2).Raisins = 3; mixes(2).M_Ms = 1;
mixes(3).Peanuts = 1; mixes(3).Almonds = 1; mixes(3).Walnuts = 0;
mixes(3).Raisins = 3; mixes(3).M_Ms = 3;
mixes(4).Peanuts = 2; mixes(4).Almonds = 0; mixes(4).Walnuts = 3;
mixes(4).Raisins = 1; mixes(4).M_Ms = 2;
mixes(5).Peanuts = 1; mixes(5).Almonds = 2; mixes(5).Walnuts = 3;
mixes(5).Raisins = 0; mixes(5).M_Ms = 2;
```

q.6 answer

필드	Peanuts	Almonds	Walnuts	Raisins	M_Ms
1	3	1	1	2	1
2	1	2	1	3	1
3	1	1	0	3	3
4	2	0	3	1	2
5	1	2	3	0	2