

>> % Solutions to Worksheet 2

>> % question 1

```
>> Vec=[54/(3+4.2^2),32,6.3^2,-
7.2^2,54,exp(3.7),sind(66)+cos(3*pi/8)]
Vec =
    2.6163    32.0000    39.6900   -51.8400
   54.0000   40.4473    1.2962
```

>> % question 2

```
>> a=3.5;b=-6.4;
>> Cvec=[a;a^2;a/b;a*b;sqrt(a)]
Cvec =
    3.5000
   12.2500
   -0.5469
  -22.4000
    1.8708
```

>> % question 3

```
>> R1vec=linspace(81,12,9)
R1vec =
    81.0000    72.3750    63.7500    55.1250
    46.5000    37.8750    29.2500    20.6250
    12.0000
```

>> % question 4

```
>> same(1:7)=-3
same =
   -3   -3   -3   -3   -3   -3   -3
```

>> % question 5

```
>> ab=[zeros(1,9) 5]
ab =
    0    0    0    0    0    0    0    0    0    5
```

>> % question 6

```
>> Btrans=[1:1:5;linspace(0,0,5);linspace(3,3,5)]
Btrans =
     1     2     3     4     5
     0     0     0     0     0
     3     3     3     3     3
>> B=Btrans'
```

B =

```
     1     0     3
     2     0     3
     3     0     3
     4     0     3
     5     0     3
```

>> % question 7

```
>> Anine(1:4,1:6)=9
Anine =
```

```
     9     9     9     9     9     9
     9     9     9     9     9     9
     9     9     9     9     9     9
     9     9     9     9     9     9
```

>> % question 8

```
>> D=[zeros(1,5);zeros(1,3) linspace(6,6,2);zeros(1,3) linspace(6,6,2)]
D =
     0     0     0     0     0
     0     0     0     6     6
     0     0     0     6     6
```

>> % question 9

```
>> v=[15,0,6,-2,3,-5,4,9,1.8,-0.35,7]
v =
Columns 1 through 9
   15.0000     0    6.0000   -2.0000    3.0000   -5.0000    4.0000
   9.0000    1.8000
Columns 10 through 11
   -0.3500    7.0000
>> v([1,3:7,11])
ans =
    15     6    -2     3    -5     4     7
```

>> % question 10

```
>> C=[0.7, 1.9, 3.1, 4.3, 5.5, 6.7, 7.9, 9.1, 10.3,
11.5, 12.7, 13.9, 15.1, 16.3, 17.5]
C =
Columns 1 through 9
    0.7000    1.9000    3.1000    4.3000    5.5000
    6.7000    7.9000    9.1000   10.3000
Columns 10 through 15
   11.5000   12.7000   13.9000   15.1000   16.3000
   17.5000
>> D=reshape(C,5,3)'
D =
    0.7000    1.9000    3.1000    4.3000    5.5000
    6.7000    7.9000    9.1000   10.3000   11.5000
   12.7000   13.9000   15.1000   16.3000   17.5000
>> % question 10 (i)
>> ua=reshape(D(:,[1,3:4]),9,1)
ua =
    0.7000
    6.7000
   12.7000
    3.1000
    9.1000
   15.1000
    4.3000
   10.3000
   16.3000
>> % question 10 (ii)
>> ub=reshape([D(2,:),D(:,3)],1,8)
ub =
    6.7000    7.9000    9.1000   10.3000   11.5000
    3.1000    9.1000   15.1000
>> % question 10 (iii)
>> uc=[D(1,1:3) D(3,3:5)]
uc =
    0.7000    1.9000    3.1000   15.1000   16.3000
   17.5000
```

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