```
Filename: Homework3.m
Midn W. T. Door
m824356
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Chapter 2 problems: 1,3,5,7,8,10
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Problem #1:

interval =

    0.2323


xa1 =

  Columns 1 through 11

    5.0000    5.2323    5.4646    5.6970    5.9293    6.1616    6.3939    6.6263    6.8586
7.0909    7.3232

  Columns 12 through 22

    7.5556    7.7879    8.0202    8.2525    8.4848    8.7172    8.9495    9.1818    9.4141
9.6465    9.8788

  Columns 23 through 33

   10.1111   10.3434   10.5758   10.8081   11.0404   11.2727   11.5051   11.7374   11.9697
12.2020   12.4343

  Columns 34 through 44

   12.6667   12.8990   13.1313   13.3636   13.5960   13.8283   14.0606   14.2929   14.5253
14.7576   14.9899

  Columns 45 through 55

   15.2222   15.4545   15.6869   15.9192   16.1515   16.3838   16.6162   16.8485   17.0808
17.3131   17.5455

  Columns 56 through 66

   17.7778   18.0101   18.2424   18.4747   18.7071   18.9394   19.1717   19.4040   19.6364
19.8687   20.1010

  Columns 67 through 77

   20.3333   20.5657   20.7980   21.0303   21.2626   21.4949   21.7273   21.9596   22.1919
22.4242   22.6566

  Columns 78 through 88
```

```
   22.8889   23.1212   23.3535   23.5859   23.8182   24.0505   24.2828   24.5152   24.7475
24.9798   25.2121

  Columns 89 through 99

   25.4444   25.6768   25.9091   26.1414   26.3737   26.6061   26.8384   27.0707   27.3030
27.5354   27.7677

  Column 100

   28.0000


xa2 =

  Columns 1 through 10

    5.0000    5.2323    5.4646    5.6970    5.9293    6.1616    6.3939    6.6263    6.8586
7.0909

  Columns 11 through 20

    7.3232    7.5556    7.7879    8.0202    8.2525    8.4848    8.7172    8.9495    9.1818
9.4141

  Columns 21 through 30

    9.6465    9.8788   10.1111   10.3434   10.5758   10.8081   11.0404   11.2727   11.5051
11.7374

  Columns 31 through 40

   11.9697   12.2020   12.4343   12.6667   12.8990   13.1313   13.3636   13.5960   13.8283
14.0606

  Columns 41 through 50

   14.2929   14.5253   14.7576   14.9899   15.2222   15.4545   15.6869   15.9192   16.1515
16.3838

  Columns 51 through 60

   16.6162   16.8485   17.0808   17.3131   17.5455   17.7778   18.0101   18.2424   18.4747
18.7071

  Columns 61 through 70

   18.9394   19.1717   19.4040   19.6364   19.8687   20.1010   20.3333   20.5657   20.7980
21.0303

  Columns 71 through 80
```

```
   21.2626   21.4949   21.7273   21.9596   22.1919   22.4242   22.6566   22.8889   23.1212 ↙
23.3535

  Columns 81 through 90

   23.5859   23.8182   24.0505   24.2828   24.5152   24.7475   24.9798   25.2121   25.4444 ↙
25.6768

  Columns 91 through 100

   25.9091   26.1414   26.3737   26.6061   26.8384   27.0707   27.3030   27.5354   27.7677 ↙
28.0000


xb1 =

  Columns 1 through 10

    2.0000    2.2000    2.4000    2.6000    2.8000    3.0000    3.2000    3.4000    3.6000 ↙
3.8000

  Columns 11 through 20

    4.0000    4.2000    4.4000    4.6000    4.8000    5.0000    5.2000    5.4000    5.6000 ↙
5.8000

  Columns 21 through 30

    6.0000    6.2000    6.4000    6.6000    6.8000    7.0000    7.2000    7.4000    7.6000 ↙
7.8000

  Columns 31 through 40

    8.0000    8.2000    8.4000    8.6000    8.8000    9.0000    9.2000    9.4000    9.6000 ↙
9.8000

  Columns 41 through 50

   10.0000   10.2000   10.4000   10.6000   10.8000   11.0000   11.2000   11.4000   11.6000 ↙
11.8000

  Columns 51 through 60

   12.0000   12.2000   12.4000   12.6000   12.8000   13.0000   13.2000   13.4000   13.6000 ↙
13.8000

  Column 61

   14.0000


xb2 =
```

```
  Columns 1 through 10

    2.0000    2.2000    2.4000    2.6000    2.8000    3.0000    3.2000    3.4000    3.6000
3.8000

  Columns 11 through 20

    4.0000    4.2000    4.4000    4.6000    4.8000    5.0000    5.2000    5.4000    5.6000
5.8000

  Columns 21 through 30

    6.0000    6.2000    6.4000    6.6000    6.8000    7.0000    7.2000    7.4000    7.6000
7.8000

  Columns 31 through 40

    8.0000    8.2000    8.4000    8.6000    8.8000    9.0000    9.2000    9.4000    9.6000
9.8000

  Columns 41 through 50

   10.0000   10.2000   10.4000   10.6000   10.8000   11.0000   11.2000   11.4000   11.6000
11.8000

  Columns 51 through 60

   12.0000   12.2000   12.4000   12.6000   12.8000   13.0000   13.2000   13.4000   13.6000
13.8000

  Column 61

   14.0000


interval =

    0.1429


xc1 =

  Columns 1 through 10

   -2.0000   -1.8571   -1.7143   -1.5714   -1.4286   -1.2857   -1.1429   -1.0000   -0.8571
-0.7143

  Columns 11 through 20

   -0.5714   -0.4286   -0.2857   -0.1429         0    0.1429    0.2857    0.4286    0.5714
0.7143
```

```
  Columns 21 through 30

    0.8571    1.0000    1.1429    1.2857    1.4286    1.5714    1.7143    1.8571    2.0000 ↙
2.1429

  Columns 31 through 40

    2.2857    2.4286    2.5714    2.7143    2.8571    3.0000    3.1429    3.2857    3.4286 ↙
3.5714

  Columns 41 through 50

    3.7143    3.8571    4.0000    4.1429    4.2857    4.4286    4.5714    4.7143    4.8571 ↙
5.0000


xc2 =

  Columns 1 through 10

   -2.0000   -1.8571   -1.7143   -1.5714   -1.4286   -1.2857   -1.1429   -1.0000   -0.8571 ↙
-0.7143

  Columns 11 through 20

   -0.5714   -0.4286   -0.2857   -0.1429         0    0.1429    0.2857    0.4286    0.5714 ↙
0.7143

  Columns 21 through 30

    0.8571    1.0000    1.1429    1.2857    1.4286    1.5714    1.7143    1.8571    2.0000 ↙
2.1429

  Columns 31 through 40

    2.2857    2.4286    2.5714    2.7143    2.8571    3.0000    3.1429    3.2857    3.4286 ↙
3.5714

  Columns 41 through 50

    3.7143    3.8571    4.0000    4.1429    4.2857    4.4286    4.5714    4.7143    4.8571 ↙
5.0000

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Problem #3:

x =

     0     2     4     6     8    10
```

```
A =

     0     6    12    18    24    30
   -20   -10     0    10    20    30

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Problem #5:

v =

     7
     9
    13
     5


w =

    -5     9    10     2

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Problem #7:

length_x =

     3


abs_x =

     2     4     7


length_y =

     3


abs_y =

     2     4     7


length_z =

     3


abs_z =

    5.8310    5.0000    7.2801
```

```
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Problem #8:

A =

     3     7    -4    12
    -5     9    10     2
     6    13     8    11
    15     5     4     1


min_A_col =

    -5     5    -4     1


max_A_col =

    15    13    10    12


min_A_row =

    -4    -5     6     1


max_A_row =

    12    10    13    15

--------------------------
Problem #10:

A =

    1.0000    4.0000    2.0000
    2.0000    4.0000  100.0000
    7.0000    9.0000    7.0000
    3.0000    3.1416   42.0000


B =

         0    1.3863    0.6931
    0.6931    1.3863    4.6052
    1.9459    2.1972    1.9459
    1.0986    1.1447    3.7377


second_row_B =

    0.6931    1.3863    4.6052
```

```
sum_2nd_row_B =

    6.6846


mult_2nd_col_A_and_1st_col_A =

    1.3863
    2.7726
   15.3806
    3.4342


max_element_from_part_c =

   15.3806


part_e =

    3.3391

>>
```