```
>> main
Enter a range enclosed in brackets: [-100000,0.00001]
How many random decimals? 100

ans =

    'Using MatLab sum function:
      The sum of unsorted decimals = -4.853941e+06.
      The sum of the sorted decimes = -4.853941e+06.
      The difference in sums (sorted-unsorted) =3.725290e-09.'


ans =

    'Using compensated the sum (unsorted) = -4.853941e+06
      The difference (MatLab Sum) from unsorted = 9.313226e-10 and sorted = 2.793968e-09'


ans =

    'Using compensated the sum (sorted) = -4.853941e+06
      The difference (MatLab Sum) from unsorted = 9.313226e-10 and sorted = 2.793968e-09'

Again? [0=yes/1=no]: 0
Enter a range enclosed in brackets: [-100000,0.00001
]
How many random decimals? 500

ans =

    'Using MatLab sum function:
      The sum of unsorted decimals = -2.502960e+07.
      The sum of the sorted decimes = -2.502960e+07.
      The difference in sums (sorted-unsorted) =0.'


ans =

    'Using compensated the sum (unsorted) = -2.502960e+07
      The difference (MatLab Sum) from unsorted = 7.450581e-09 and sorted = 7.450581e-09'


ans =

    'Using compensated the sum (sorted) = -2.502960e+07
      The difference (MatLab Sum) from unsorted = 7.450581e-09 and sorted = 7.450581e-09'

Again? [0=yes/1=no]: 0
Enter a range enclosed in brackets: [-100000,0.00001]
How many random decimals? 10000

ans =

    'Using MatLab sum function:
      The sum of unsorted decimals = -5.005147e+08.
      The sum of the sorted decimes = -5.005147e+08.
      The difference in sums (sorted-unsorted) =7.152557e-07.'
```

```
ans =

    'Using compensated the sum (unsorted) = -5.005147e+08
      The difference (MatLab Sum) from unsorted = 2.264977e-06 and sorted = 1.549721e-06'


ans =

    'Using compensated the sum (sorted) = -5.005147e+08
      The difference (MatLab Sum) from unsorted = 2.264977e-06 and sorted = 1.549721e-06'

Again? [0=yes/1=no]: 0
Enter a range enclosed in brackets: [-100000,0.00001]
How many random decimals? 100000

ans =

    'Using MatLab sum function:
      The sum of unsorted decimals = -4.997305e+09.
      The sum of the sorted decimes = -4.997305e+09.
      The difference in sums (sorted-unsorted) =3.814697e-05.'


ans =

    'Using compensated the sum (unsorted) = -4.997305e+09
      The difference (MatLab Sum) from unsorted = 2.288818e-05 and sorted = 1.525879e-05'


ans =

    'Using compensated the sum (sorted) = -4.997305e+09
      The difference (MatLab Sum) from unsorted = 2.288818e-05 and sorted = 1.525879e-05'

Again? [0=yes/1=no]: 1
>>
```