```
Compiler is using classPath = '[C:
    \Users\ezeha\OneDrive\Documents\Development\Java\Projects\COSC237-
   Assignments\Assignment2\Matrix, C:\Users\ezeha\Downloads\drjava-beta-20190813-220051.jar]'; bootClassPath = 'null'
   Enter the size of the square matrix: 5
   Your options are:
.5
   1) Add 2 matricies
   2) Subtract 2 matricies
   3) Multiply 2 matricies
    4) Multiply matrix by a constant
8
9
   5) Transpose matrix
10
   6) Matrix trace
   7) Make a copy
11
12
   8) Test for equality
13 0) EXIT
14 Please enter your option: 1
15
16
   First Matrix is:
17
           2
        5
                             9
             6
                  2
18
                        4
19
        8
            10
                  4
                        9
                              4
        3
20
            6
                  10
                        1
                             7
        5
            10
                  2
                        5
21
22
   First Matrix is:
                             7
           6
        3
2.3
                  2
24
        1
            1
25
        8
            10
                  4
                        5
                             1
26
        8
             4
                        1
27
       10
             8
                  3
                        3
   The resulting matrix is:
28
29
        8
             8
                   6
                       12
30
             7
                       8
                            13
        6
            20
                             5
31
       16
                  8
                       14
32
       11
            10
                 17
                       2
                            11
       15
33
            18
                  5
                        8
                            14
34
35 Command number 1 completed
36
37 Your options are:
38 -----
39
   1) Add 2 matricies
   2) Subtract 2 matricies
40
   3) Multiply 2 matricies
41
42
   4) Multiply matrix by a constant
43
    5) Transpose matrix
   6) Matrix trace
44
45
   7) Make a copy
   8) Test for equality
46
47
   0) EXIT
48 Please enter your option: 2
49
50
   First Matrix is:
                             7
51
        2
           1
             1
52
        4
                        5
                             6
53
        4
             6
                   5
                       10
                             4
54
        5
             1
                        2
                             9
        2
            3
                   6
55
56
   First Matrix is:
57
        6
             5
                              3
             2
                  10
58
        1
                       1.0
59
        9
             2
                  6
                        6
                             3
60
             4
                 10
                        3
        5
61
             4
                  1
                             8
   The resulting matrix is:
62
       -4
            -4
                 2
                       2
                             4
63
64
        3
            -1
                  -3
                       -5
                             -1
6.5
       -5
            4
                 -1
                       4
                             1
66
        4
            -3
                  -3
                       -1
                             1
```

-3

-5

```
68
   Command number 2 completed
69
70
71 Your options are:
72
73 1) Add 2 matricies
74
   2) Subtract 2 matricies
75
   3) Multiply 2 matricies
   4) Multiply matrix by a constant
76
77
   5) Transpose matrix
78
   6) Matrix trace
   7) Make a copy
79
80 8) Test for equality
81
   0) EXIT
82
   Please enter your option: 3
83
84 First Matrix is:
85
       6 8
                10
                      10
                            7
       2
86
            4
                       2
87
       9
            4
                           10
                 6
                       8
                            9
88
            1
       3
89
            8
                 10
                       1
                            8
90
   First Matrix is:
                           10
          6
       5
                 10
                       4
91
92
       5
            5
                 1
       3
                       2
9.3
            9
                 6
           5
                6
94
       6
            8
95
       8
                10
                      6
  The resulting matrix is:
96
97
    298 298 298 298 298
                80
98
      8.0
           8.0
                     8.0
                          80
99
     197
          197
               197
                     197
                          197
100
     176 176 176 176 176
     234 234 234
                    234 234
101
102
103 Command number 3 completed
104
105 Your options are:
106 ----
107 1) Add 2 matricies
108 2) Subtract 2 matricies
109 3) Multiply 2 matricies 110 4) Multiply matrix by a constant
111 5) Transpose matrix
112 6) Matrix trace
113 7) Make a copy
114 8) Test for equality
115 0) EXIT
116 Please enter your option: 4
117
118 Enter the multiplication constant5
119 The original matrix is:
120
           3
121
       9
                       3
                            9
             6
           8
122
       4
                10
                      9
                            8
123
            4
                 10
                      5
                            2
124
       4
           10
                 1
                       4
125 The resulting matrix is:
      20
           1.5
                 15
                      20
                           5
126
127
       45
            30
                 15
                      15
                           45
      20
            40
                 50
                      45
128
                           40
       5
129
           20
                 50
                      25
                           1.0
           50
130
      20
                 5
                      20
                           15
131
132 Command number 4 completed
133
134 Your options are:
135 -----
136 1) Add 2 matricies
137 2) Subtract 2 matricies
```

```
138 3) Multiply 2 matricies
139 4) Multiply matrix by a constant
140 5) Transpose matrix
141 6) Matrix trace
142 7) Make a copy
143 8) Test for equality
144 0) EXIT
145 Please enter your option: 5
146
147 The original matrix is:
       9 9 6 9
148
      10
            8
                 3
149
150
       2 3 6 10
          5 5 8
8 10 6
151
                           4
152
       6
                           6
153 The resulting matrix is:
       9 10
               2 5 6
1.54
155
       9
           8
                 3
                 6
156
       6
            3
                      5
                          10
157
       9
          5
                10 8
                          6
            9
                6
                     4
                           6
158
159
160 Command number 5 completed
161
162 Your options are:
163 -----
164 1) Add 2 matricies
165 2) Subtract 2 matricies 166 3) Multiply 2 matricies
167 4) Multiply matrix by a constant
168 5) Transpose matrix
169 6) Matrix trace
170 7) Make a copy
171 8) Test for equality
172 0) EXIT
173 Please enter your option: 6
174
175 The original matrix is:
176
       7 4 4 5
177
            9
                      2
                           3
      10
                 6
          5
178
      10
                10
                      6
                           8
                 2
179
       2
            4
                           4
              8
          10
                     5
180
       6
181 The trace for this matrix is: 40
182
183 Command number 6 completed
184
185 Your options are:
186 -----
187 1) Add 2 matricies
188 2) Subtract 2 matricies
189 3) Multiply 2 matricies
190 4) Multiply matrix by a constant
191 5) Transpose matrix
192 6) Matrix trace
193 7) Make a copy
194 8) Test for equality
195 0) EXIT
196 Please enter your option: 7
197
198 The original matrix is:
199
    9 10 1 10
                   7
      10
           7
                           8
200
       2
201
            4
                           1
202
       2
           3
               6
                     1
          5
      10
203
                1 10
                           8
204 The copy of this matrix is: 205 9 10 1 10 6
                1 10
3 7
           7
206
      10
                           8
207
      2
           4
                5
                    4
                           1
```

```
3 6 1
5 1 10
208
     10
210 Testing for equality. Should be equal!!
211 The matricies are equal!!
212 Command number 7 completed
214 Your options are:
215 ----
216 1) Add 2 matricies
217 2) Subtract 2 matricies
218 3) Multiply 2 matricies
219 4) Multiply matrix by a constant
220 5) Transpose matrix
221 6) Matrix trace
222 7) Make a copy
223 8) Test for equality
224 0) EXIT
225 Please enter your option: 8
226
227 First Matrix is:
       7 6 4
228
                               5
       10
                              10
229
              8
230
       3
                  10
                         8
                              5
            9
                 3
        7
                               3
231
                        10
232
        8
                   5
                        10
233 First Matrix is:
                         3
                              4
234
     5 10 5
        4
                  10
235
             4
                         3
                               1
              7
        2
236
                   2
                         4
                               3
237
        7
             7
                   7
                         4
                               4
        4
                  6
                         3
                               8
238
             4
239 The matricies are not equal!!
240 Command number 8 completed
241
242 Your options are:
243 -----
244 1) Add 2 matricies
245 2) Subtract 2 matricies
246 3) Multiply 2 matricies
247 4) Multiply matrix by a constant
248 5) Transpose matrix
249 6) Matrix trace
250 7) Make a copy
251 8) Test for equality
252 0) EXIT
253 Please enter your option: 0
254
255 Testing completed.
```