Note ns = nano second.

TEST MATRIX 1:

Matrix A size => [4][4]
Matrix B size => [4][3]

Running time matrix without thread: 20100 ns
Running time matrix with thread: 22665 ns

TEST MATRIX 2:

Matrix A size => [20][4]
Matrix B size => [4][20]

Running time matrix without thread: 1213681 ns
Running time matrix with thread: 442614 ns

Conclusion:
 If Matrix multiplication size is small, matrix without thread is beneficial but when size increases matrix with thread is very good.

Output Matrix 1:

****
Read the two input matrices from a text file, and print them out neatly
****

***** Printing Matrix A *****
1.0 2.0 3.0 4.0
5.0 6.0 7.0 8.0
9.0 10.0 11.0 12.0
1.0 2.0 3.0 4.0
***** Printing Matrix B *****
1.0 2.0 3.0
4.0 5.0 6.0
7.0 8.0 9.0
10.0 11.0 12.0

****
check that matrix dimensions allow multiplication; if not, complain and quit
****

Matrix Can be multiplied

```
**************************************************
Matrix multiply without thread
**************************************************

 Simple multipied mtarix without thread started
 Matrix mul completed in ns = 20100
***** Printing Matrix D [ Simple multipied mtarix without thread]: *****
70.0 80.0 90.0
158.0 184.0 210.0
246.0 288.0 330.0
70.0 80.0 90.0


**************************************************
Spin off threads to work concurrently on the computation of the product matrix
**************************************************

***** Printing Matrix A *****
1.0 2.0 3.0 4.0
5.0 6.0 7.0 8.0
9.0 10.0 11.0 12.0
1.0 2.0 3.0 4.0
***** Printing Matrix B *****
1.0 2.0 3.0
4.0 5.0 6.0
7.0 8.0 9.0
10.0 11.0 12.0
Mtarix multiplication with thread started
My thread 10 execution time: 0 0 70.0
My thread 12 execution time: 0 2 90.0
My thread 11 execution time: 0 1 80.0
My thread 13 execution time: 1 0 158.0
My thread 14 execution time: 1 1 184.0
My thread 15 execution time: 1 2 210.0
My thread 17 execution time: 2 1 288.0
My thread 16 execution time: 2 0 246.0
My thread 18 execution time: 2 2 330.0
My thread 19 execution time: 3 0 70.0
My thread 20 execution time: 3 1 80.0
My thread 21 execution time: 3 2 90.0
 Matrix mul completed in ns = 22665
***** Printing Matrix C [multipied mtarix]: *****
70.0 80.0 90.0
158.0 184.0 210.0
246.0 288.0 330.0
70.0 80.0 90.0
```

Output Matrix 2:
```
**************************************************
Read the two input matrices from a text file, and print them out neatly
**************************************************
```

```
***** Printing Matrix A *****
1.0 2.0 3.0 4.0
5.0 6.0 7.0 8.0
9.0 10.0 11.0 12.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
***** Printing Matrix B *****
1.0 2.0 3.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0
4.0 5.0 6.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0
7.0 8.0 9.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0
10.0 11.0 12.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0


**************************************************
check that matrix dimensions allow multiplication; if not, complain and quit
**************************************************

 Matrix Can be multiplied



**************************************************
Matrix multiply without thread
**************************************************

 Simple multipied mtarix without thread started
 Matrix mul completed in ns = 1213681
***** Printing Matrix D [ Simple multipied mtarix without thread]: *****
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
158.0 184.0 210.0 26.0 52.0 78.0 104.0 130.0 156.0 182.0 208.0 234.0 260.0 26.0 52.0 78.0 104.0 130.0
156.0 182.0
246.0 288.0 330.0 42.0 84.0 126.0 168.0 210.0 252.0 294.0 336.0 378.0 420.0 42.0 84.0 126.0 168.0 210.0
252.0 294.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
```

```
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
```

```
***************************************************
Spin off threads to work concurrently on the computation of the product matrix
***************************************************

***** Printing Matrix A *****
1.0 2.0 3.0 4.0
5.0 6.0 7.0 8.0
9.0 10.0 11.0 12.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0
1.0 2.0 3.0 4.0

***** Printing Matrix B *****
1.0 2.0 3.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0
4.0 5.0 6.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0
7.0 8.0 9.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0
```

10.0 11.0 12.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0

Mtarix multiplication with thread started
My thread 10 execution time: 0 0 70.0
My thread 11 execution time: 0 1 80.0
My thread 13 execution time: 0 3 10.0
My thread 15 execution time: 0 5 30.0
My thread 16 execution time: 0 6 40.0
My thread 17 execution time: 0 7 50.0
My thread 12 execution time: 0 2 90.0
My thread 14 execution time: 0 4 20.0
My thread 18 execution time: 0 8 60.0
My thread 20 execution time: 0 10 80.0
My thread 21 execution time: 0 11 90.0
My thread 22 execution time: 0 12 100.0
My thread 23 execution time: 0 13 10.0
My thread 19 execution time: 0 9 70.0
My thread 24 execution time: 0 14 20.0
My thread 26 execution time: 0 16 40.0
My thread 28 execution time: 0 18 60.0
My thread 27 execution time: 0 17 50.0
My thread 29 execution time: 0 19 70.0
My thread 25 execution time: 0 15 30.0
My thread 30 execution time: 1 0 158.0
My thread 31 execution time: 1 1 184.0
My thread 32 execution time: 1 2 210.0
My thread 33 execution time: 1 3 26.0
My thread 34 execution time: 1 4 52.0
My thread 35 execution time: 1 5 78.0
My thread 37 execution time: 1 7 130.0
My thread 39 execution time: 1 9 182.0
My thread 38 execution time: 1 8 156.0
My thread 40 execution time: 1 10 208.0
My thread 42 execution time: 1 12 260.0
My thread 44 execution time: 1 14 52.0
My thread 45 execution time: 1 15 78.0
My thread 47 execution time: 1 17 130.0
My thread 48 execution time: 1 18 156.0
My thread 49 execution time: 1 19 182.0
My thread 51 execution time: 2 1 288.0
My thread 52 execution time: 2 2 330.0
My thread 53 execution time: 2 3 42.0
My thread 54 execution time: 2 4 84.0
My thread 57 execution time: 2 7 210.0
My thread 56 execution time: 2 6 168.0
My thread 55 execution time: 2 5 126.0
My thread 59 execution time: 2 9 294.0
My thread 58 execution time: 2 8 252.0
My thread 61 execution time: 2 11 378.0
My thread 36 execution time: 1 6 104.0
My thread 41 execution time: 1 11 234.0
My thread 50 execution time: 2 0 246.0
My thread 43 execution time: 1 13 26.0

```
My thread 46 execution time: 1 16 104.0
My thread 60 execution time: 2 10 336.0
My thread 62 execution time: 2 12 420.0
My thread 64 execution time: 2 14 84.0
My thread 63 execution time: 2 13 42.0
My thread 65 execution time: 2 15 126.0
My thread 66 execution time: 2 16 168.0
My thread 67 execution time: 2 17 210.0
My thread 68 execution time: 2 18 252.0
My thread 69 execution time: 2 19 294.0
My thread 70 execution time: 3 0 70.0
My thread 71 execution time: 3 1 80.0
My thread 72 execution time: 3 2 90.0
My thread 75 execution time: 3 5 30.0
My thread 73 execution time: 3 3 10.0
My thread 74 execution time: 3 4 20.0
My thread 77 execution time: 3 7 50.0
My thread 78 execution time: 3 8 60.0
My thread 79 execution time: 3 9 70.0
My thread 80 execution time: 3 10 80.0
My thread 81 execution time: 3 11 90.0
My thread 82 execution time: 3 12 100.0
My thread 84 execution time: 3 14 20.0
My thread 83 execution time: 3 13 10.0
My thread 85 execution time: 3 15 30.0
My thread 87 execution time: 3 17 50.0
My thread 88 execution time: 3 18 60.0
My thread 89 execution time: 3 19 70.0
My thread 90 execution time: 4 0 70.0
My thread 91 execution time: 4 1 80.0
My thread 92 execution time: 4 2 90.0
My thread 93 execution time: 4 3 10.0
My thread 94 execution time: 4 4 20.0
My thread 95 execution time: 4 5 30.0
My thread 96 execution time: 4 6 40.0
My thread 98 execution time: 4 8 60.0
My thread 97 execution time: 4 7 50.0
My thread 86 execution time: 3 16 40.0
My thread 100 execution time: 4 10 80.0
My thread 99 execution time: 4 9 70.0
My thread 101 execution time: 4 11 90.0
My thread 102 execution time: 4 12 100.0
My thread 103 execution time: 4 13 10.0
My thread 104 execution time: 4 14 20.0
My thread 105 execution time: 4 15 30.0
My thread 107 execution time: 4 17 50.0
My thread 106 execution time: 4 16 40.0
My thread 110 execution time: 5 0 70.0
My thread 112 execution time: 5 2 90.0
My thread 114 execution time: 5 4 20.0
My thread 117 execution time: 5 7 50.0
My thread 118 execution time: 5 8 60.0
My thread 121 execution time: 5 11 90.0
My thread 122 execution time: 5 12 100.0
My thread 76 execution time: 3 6 40.0
```

```
My thread 123 execution time: 5 13 10.0
My thread 125 execution time: 5 15 30.0
My thread 126 execution time: 5 16 40.0
My thread 119 execution time: 5 9 70.0
My thread 127 execution time: 5 17 50.0
My thread 129 execution time: 5 19 70.0
My thread 128 execution time: 5 18 60.0
My thread 130 execution time: 6 0 70.0
My thread 131 execution time: 6 1 80.0
My thread 132 execution time: 6 2 90.0
My thread 133 execution time: 6 3 10.0
My thread 134 execution time: 6 4 20.0
My thread 135 execution time: 6 5 30.0
My thread 136 execution time: 6 6 40.0
My thread 137 execution time: 6 7 50.0
My thread 138 execution time: 6 8 60.0
My thread 139 execution time: 6 9 70.0
My thread 141 execution time: 6 11 90.0
My thread 140 execution time: 6 10 80.0
My thread 143 execution time: 6 13 10.0
My thread 145 execution time: 6 15 30.0
My thread 144 execution time: 6 14 20.0
My thread 142 execution time: 6 12 100.0
My thread 146 execution time: 6 16 40.0
My thread 147 execution time: 6 17 50.0
My thread 148 execution time: 6 18 60.0
My thread 149 execution time: 6 19 70.0
My thread 150 execution time: 7 0 70.0
My thread 152 execution time: 7 2 90.0
My thread 108 execution time: 4 18 60.0
My thread 153 execution time: 7 3 10.0
My thread 154 execution time: 7 4 20.0
My thread 113 execution time: 5 3 10.0
My thread 111 execution time: 5 1 80.0
My thread 155 execution time: 7 5 30.0
My thread 156 execution time: 7 6 40.0
My thread 157 execution time: 7 7 50.0
My thread 115 execution time: 5 5 30.0
My thread 161 execution time: 7 11 90.0
My thread 159 execution time: 7 9 70.0
My thread 120 execution time: 5 10 80.0
My thread 160 execution time: 7 10 80.0
My thread 164 execution time: 7 14 20.0
My thread 163 execution time: 7 13 10.0
My thread 165 execution time: 7 15 30.0
My thread 162 execution time: 7 12 100.0
My thread 166 execution time: 7 16 40.0
My thread 168 execution time: 7 18 60.0
My thread 169 execution time: 7 19 70.0
My thread 167 execution time: 7 17 50.0
My thread 170 execution time: 8 0 70.0
My thread 171 execution time: 8 1 80.0
My thread 172 execution time: 8 2 90.0
My thread 173 execution time: 8 3 10.0
My thread 124 execution time: 5 14 20.0
```

```
My thread 174 execution time: 8 4 20.0
My thread 175 execution time: 8 5 30.0
My thread 176 execution time: 8 6 40.0
My thread 177 execution time: 8 7 50.0
My thread 178 execution time: 8 8 60.0
My thread 179 execution time: 8 9 70.0
My thread 181 execution time: 8 11 90.0
My thread 182 execution time: 8 12 100.0
My thread 183 execution time: 8 13 10.0
My thread 185 execution time: 8 15 30.0
My thread 186 execution time: 8 16 40.0
My thread 184 execution time: 8 14 20.0
My thread 187 execution time: 8 17 50.0
My thread 188 execution time: 8 18 60.0
My thread 190 execution time: 9 0 70.0
My thread 189 execution time: 8 19 70.0
My thread 191 execution time: 9 1 80.0
My thread 192 execution time: 9 2 90.0
My thread 194 execution time: 9 4 20.0
My thread 195 execution time: 9 5 30.0
My thread 267 execution time: 12 17 50.0
My thread 294 execution time: 14 4 20.0
My thread 306 execution time: 14 16 40.0
My thread 302 execution time: 14 12 100.0
My thread 299 execution time: 14 9 70.0
My thread 300 execution time: 14 10 80.0
My thread 301 execution time: 14 11 90.0
My thread 297 execution time: 14 7 50.0
My thread 290 execution time: 14 0 70.0
My thread 296 execution time: 14 6 40.0
My thread 291 execution time: 14 1 80.0
My thread 295 execution time: 14 5 30.0
My thread 288 execution time: 13 18 60.0
My thread 286 execution time: 13 16 40.0
My thread 277 execution time: 13 7 50.0
My thread 287 execution time: 13 17 50.0
My thread 284 execution time: 13 14 20.0
My thread 283 execution time: 13 13 10.0
My thread 282 execution time: 13 12 100.0
My thread 278 execution time: 13 8 60.0
My thread 276 execution time: 13 6 40.0
My thread 292 execution time: 14 2 90.0
My thread 303 execution time: 14 13 10.0
My thread 266 execution time: 12 16 40.0
My thread 275 execution time: 13 5 30.0
My thread 285 execution time: 13 15 30.0
My thread 259 execution time: 12 9 70.0
My thread 281 execution time: 13 11 90.0
My thread 261 execution time: 12 11 90.0
My thread 310 execution time: 15 0 70.0
My thread 279 execution time: 13 9 70.0
My thread 253 execution time: 12 3 10.0
My thread 250 execution time: 12 0 70.0
My thread 273 execution time: 13 3 10.0
My thread 271 execution time: 13 1 80.0
```

```
My thread 180 execution time: 8 10 80.0
My thread 280 execution time: 13 10 80.0
My thread 289 execution time: 13 19 70.0
My thread 298 execution time: 14 8 60.0
My thread 307 execution time: 14 17 50.0
My thread 304 execution time: 14 14 20.0
My thread 308 execution time: 14 18 60.0
My thread 305 execution time: 14 15 30.0
My thread 309 execution time: 14 19 70.0
My thread 270 execution time: 13 0 70.0
My thread 233 execution time: 11 3 10.0
My thread 207 execution time: 9 17 50.0
My thread 236 execution time: 11 6 40.0
My thread 265 execution time: 12 15 30.0
My thread 205 execution time: 9 15 30.0
My thread 245 execution time: 11 15 30.0
My thread 264 execution time: 12 14 20.0
My thread 197 execution time: 9 7 50.0
My thread 263 execution time: 12 13 10.0
My thread 274 execution time: 13 4 20.0
My thread 260 execution time: 12 10 80.0
My thread 262 execution time: 12 12 100.0
My thread 269 execution time: 12 19 70.0
My thread 257 execution time: 12 7 50.0
My thread 254 execution time: 12 4 20.0
My thread 268 execution time: 12 18 60.0
My thread 255 execution time: 12 5 30.0
My thread 258 execution time: 12 8 60.0
My thread 256 execution time: 12 6 40.0
My thread 252 execution time: 12 2 90.0
My thread 251 execution time: 12 1 80.0
My thread 249 execution time: 11 19 70.0
My thread 248 execution time: 11 18 60.0
My thread 247 execution time: 11 17 50.0
My thread 246 execution time: 11 16 40.0
My thread 244 execution time: 11 14 20.0
My thread 243 execution time: 11 13 10.0
My thread 158 execution time: 7 8 60.0
My thread 242 execution time: 11 12 100.0
My thread 241 execution time: 11 11 90.0
My thread 240 execution time: 11 10 80.0
My thread 239 execution time: 11 9 70.0
My thread 116 execution time: 5 6 40.0
My thread 238 execution time: 11 8 60.0
My thread 237 execution time: 11 7 50.0
My thread 235 execution time: 11 5 30.0
My thread 234 execution time: 11 4 20.0
My thread 232 execution time: 11 2 90.0
My thread 231 execution time: 11 1 80.0
My thread 229 execution time: 10 19 70.0
My thread 230 execution time: 11 0 70.0
My thread 227 execution time: 10 17 50.0
My thread 226 execution time: 10 16 40.0
My thread 109 execution time: 4 19 70.0
My thread 225 execution time: 10 15 30.0
```

```
My thread 151 execution time: 7 1 80.0
My thread 223 execution time: 10 13 10.0
My thread 222 execution time: 10 12 100.0
My thread 221 execution time: 10 11 90.0
My thread 220 execution time: 10 10 80.0
My thread 218 execution time: 10 8 60.0
My thread 228 execution time: 10 18 60.0
My thread 216 execution time: 10 6 40.0
My thread 224 execution time: 10 14 20.0
My thread 213 execution time: 10 3 10.0
My thread 212 execution time: 10 2 90.0
My thread 219 execution time: 10 9 70.0
My thread 214 execution time: 10 4 20.0
My thread 211 execution time: 10 1 80.0
My thread 210 execution time: 10 0 70.0
My thread 209 execution time: 9 19 70.0
My thread 208 execution time: 9 18 60.0
My thread 217 execution time: 10 7 50.0
My thread 215 execution time: 10 5 30.0
My thread 204 execution time: 9 14 20.0
My thread 202 execution time: 9 12 100.0
My thread 200 execution time: 9 10 80.0
My thread 199 execution time: 9 9 70.0
My thread 206 execution time: 9 16 40.0
My thread 196 execution time: 9 6 40.0
My thread 193 execution time: 9 3 10.0
My thread 198 execution time: 9 8 60.0
My thread 201 execution time: 9 11 90.0
My thread 203 execution time: 9 13 10.0
My thread 272 execution time: 13 2 90.0
My thread 293 execution time: 14 3 10.0
My thread 316 execution time: 15 6 40.0
My thread 318 execution time: 15 8 60.0
My thread 321 execution time: 15 11 90.0
My thread 323 execution time: 15 13 10.0
My thread 319 execution time: 15 9 70.0
My thread 322 execution time: 15 12 100.0
My thread 313 execution time: 15 3 10.0
My thread 326 execution time: 15 16 40.0
My thread 317 execution time: 15 7 50.0
My thread 315 execution time: 15 5 30.0
My thread 332 execution time: 16 2 90.0
My thread 327 execution time: 15 17 50.0
My thread 328 execution time: 15 18 60.0
My thread 333 execution time: 16 3 10.0
My thread 336 execution time: 16 6 40.0
My thread 339 execution time: 16 9 70.0
My thread 337 execution time: 16 7 50.0
My thread 320 execution time: 15 10 80.0
My thread 368 execution time: 17 18 60.0
My thread 342 execution time: 16 12 100.0
My thread 366 execution time: 17 16 40.0
My thread 369 execution time: 17 19 70.0
My thread 344 execution time: 16 14 20.0
My thread 334 execution time: 16 4 20.0
```

```
My thread 325 execution time: 15 15 30.0
My thread 364 execution time: 17 14 20.0
My thread 361 execution time: 17 11 90.0
My thread 362 execution time: 17 12 100.0
My thread 363 execution time: 17 13 10.0
My thread 354 execution time: 17 4 20.0
My thread 358 execution time: 17 8 60.0
My thread 349 execution time: 16 19 70.0
My thread 360 execution time: 17 10 80.0
My thread 353 execution time: 17 3 10.0
My thread 359 execution time: 17 9 70.0
My thread 340 execution time: 16 10 80.0
My thread 350 execution time: 17 0 70.0
My thread 345 execution time: 16 15 30.0
My thread 329 execution time: 15 19 70.0
My thread 314 execution time: 15 4 20.0
My thread 311 execution time: 15 1 80.0
My thread 312 execution time: 15 2 90.0
My thread 341 execution time: 16 11 90.0
My thread 331 execution time: 16 1 80.0
My thread 330 execution time: 16 0 70.0
My thread 348 execution time: 16 18 60.0
My thread 346 execution time: 16 16 40.0
My thread 343 execution time: 16 13 10.0
My thread 372 execution time: 18 2 90.0
My thread 338 execution time: 16 8 60.0
My thread 370 execution time: 18 0 70.0
My thread 347 execution time: 16 17 50.0
My thread 356 execution time: 17 6 40.0
My thread 373 execution time: 18 3 10.0
My thread 367 execution time: 17 17 50.0
My thread 371 execution time: 18 1 80.0
My thread 365 execution time: 17 15 30.0
My thread 357 execution time: 17 7 50.0
My thread 355 execution time: 17 5 30.0
My thread 351 execution time: 17 1 80.0
My thread 335 execution time: 16 5 30.0
My thread 352 execution time: 17 2 90.0
My thread 324 execution time: 15 14 20.0
My thread 374 execution time: 18 4 20.0
My thread 375 execution time: 18 5 30.0
My thread 376 execution time: 18 6 40.0
My thread 377 execution time: 18 7 50.0
My thread 378 execution time: 18 8 60.0
My thread 379 execution time: 18 9 70.0
My thread 380 execution time: 18 10 80.0
My thread 381 execution time: 18 11 90.0
My thread 382 execution time: 18 12 100.0
My thread 383 execution time: 18 13 10.0
My thread 384 execution time: 18 14 20.0
My thread 385 execution time: 18 15 30.0
My thread 386 execution time: 18 16 40.0
My thread 387 execution time: 18 17 50.0
My thread 388 execution time: 18 18 60.0
My thread 389 execution time: 18 19 70.0
```

```
My thread 390 execution time: 19 0 70.0
My thread 391 execution time: 19 1 80.0
My thread 393 execution time: 19 3 10.0
My thread 392 execution time: 19 2 90.0
My thread 394 execution time: 19 4 20.0
My thread 395 execution time: 19 5 30.0
My thread 396 execution time: 19 6 40.0
My thread 397 execution time: 19 7 50.0
My thread 398 execution time: 19 8 60.0
My thread 399 execution time: 19 9 70.0
My thread 400 execution time: 19 10 80.0
My thread 401 execution time: 19 11 90.0
My thread 402 execution time: 19 12 100.0
My thread 404 execution time: 19 14 20.0
My thread 405 execution time: 19 15 30.0
My thread 406 execution time: 19 16 40.0
My thread 407 execution time: 19 17 50.0
My thread 408 execution time: 19 18 60.0
My thread 409 execution time: 19 19 70.0
My thread 403 execution time: 19 13 10.0
 Matrix mul completed in ns = 442614




***** Printing Matrix C [multipied mtarix]: *****
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
158.0 184.0 210.0 26.0 52.0 78.0 104.0 130.0 156.0 182.0 208.0 234.0 260.0 26.0 52.0 78.0 104.0 130.0
156.0 182.0
246.0 288.0 330.0 42.0 84.0 126.0 168.0 210.0 252.0 294.0 336.0 378.0 420.0 42.0 84.0 126.0 168.0 210.0
252.0 294.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
70.0 80.0 90.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0
```