Matrix Multiplication — v3.4 (regenerated)

Source: /mnt/data/Main.java Generated: 2025-11-15 13:44:18Z

Test #39 (source L159)

```
{{{1,2,3},{4,5,6},{7,8,9}},{{9,8,7},{6,5,4},{3,2,1}}} Executed
lists: [[[1, 2, 3],[4, 5, 6],[7, 8, 9]]; [[9, 8, 7],[6, 5, 4],[3,
2, 1]]]
 Step 1: A(3, 3) x B(3, 3)
  My-code result: [[30, 24, 18], [84, 69, 54], [138, 114, 90]]
  Expected (strict): [[30, 24, 18], [84, 69, 54], [138, 114, 90]]
```

Test #40 (source L161)

```
{{{1},{2,3},{4,5,6}},{{6,7},{8,9},{10,11}}}
Executed lists: [[[1],[2, 3],[4, 5, 6]]; [[6,
7],[8, 9],[10, 11]]]
 Step 1: A(3, 3) x B(3, 2)
  My-code result: [[6, 7], [36, 41], [124, 139]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #41 (source L163)

```
{{{1,2}},{{3},{4}},{{5,6}},{{7},{8}}}
Executed lists:
[[[1, 2]]; [[3],[4]]; [[5, 6]]; [[7],[8]]]
 Step 1: A(1, 2) x B(2, 1)
  My-code result: [[11]]
  Expected (strict): [[11]]
 Step 2: A(1, 1) x B(1, 2)
  My-code result: [[55, 66]]
  Expected (strict): [[55, 66]]
 Step 3: A(1, 2) x B(2, 1)
  My-code result: [[913]]
  Expected (strict): [[913]]
```

Test #42 (source L165)

```
{{{1,2,3,4}},{{5},{6},{7},{8}}}
Executed lists:
[[[1, 2, 3, 4]]; [[5],[6],[7],[8]]]
 Step 1: A(1, 4) x B(4, 1)
  My-code result: [[70]]
  Expected (strict): [[70]]
```

Test #43 (source L167)

```
{{{1,null,3},{4,5,null}},{{7,8},{9,10},{11,12}}}
Executed lists: [[[1, None, 3],[4, 5, None]]; [[7,
8],[9, 10],[11, 12]]]
 Step 1: A(2, 3) x B(3, 2)
  My-code result: [[40, 44], [73, 82]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #44 (source L169)

```
{{{}},{{1,2},{3,4}}}
Executed lists:
[[[]]; [[1, 2],[3, 4]]]
 Step 1: A(1, 0) x B(2, 2)
  My-code result: [[0, 0]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=0 rowsB=2)
```

Test #45 (source L171)

```
{{{1},{2},{3},{4}},{{1,2,3,4}}}
Executed lists:
[[[1],[2],[3],[4]]; [[1, 2, 3, 4]]]
 Step 1: A(4, 1) x B(1, 4)
  My-code result: [[1, 2, 3, 4], [2, 4, 6, 8], [3, 6, 9, 12], [4, 8, 12, 16]]
  Expected (strict): [[1, 2, 3, 4], [2, 4, 6, 8], [3, 6, 9, 12], [4, 8, 12, 16]]
```

Test #46 (source L173)

```
{{{1}},{{2,3}},{{4},{5},{6}},{{7,8,9}}}
Executed lists:
[[[1]]; [[2, 3]]; [[4],[5],[6]]; [[7, 8, 9]]]
 Step 1: A(1, 1) x B(1, 2)
  My-code result: [[2, 3]]
  Expected (strict): [[2, 3]]
 Step 2: A(1, 2) x B(3, 1)
  My-code result: [[23]]   Expected (strict): Invalid/Discarded
(Incompatible dims colsA=2 rowsB=3)
 Step 3: A(1, 1) x B(1, 3)
  My-code result: [[161, 184, 207]]
  Expected (strict): [[161, 184, 207]]
```

Test #47 (source L175)

```
{{{1,2},{3,4}},{{1,2},{3,4}},{{1,2},{3,4}}}
Executed lists:
[[[1, 2],[3, 4]]; [[1, 2],[3, 4]]; [[1, 2],[3, 4]]]
 Step 1: A(2, 2) x B(2, 2)
  My-code result: [[7, 10], [15, 22]]
  Expected (strict): [[7, 10], [15, 22]]
 Step 2: A(2, 2) x B(2, 2)
  My-code result: [[37, 54], [81, 118]]
  Expected (strict): [[37, 54], [81, 118]]
```

Test #48 (source L177)

```
{{{1,2,3,4,5}},{{6},{7},{8},{9},{10}}}
Executed lists:
[[[1, 2, 3, 4, 5]]; [[6],[7],[8],[9],[10]]]
 Step 1: A(1, 5) x B(5, 1)
  My-code result: [[130]]
  Expected (strict): [[130]]
```

Test #49 (source L179)

```
{{{1,2},{3}},{{4,5,6}},{{7},{8,9}}}
Executed lists:
[[[1, 2],[3]]; [[4, 5, 6]]; [[7],[8, 9]]]
 Step 1: A(2, 2) x B(1, 3)
  My-code result: [[4, 5, 6], [12, 15, 18]]   Expected (strict):
Invalid/Discarded (Incompatible dims colsA=2 rowsB=1)
 Step 2: A(2, 3) x B(2, 2)
  My-code result: [[68, 45], [204, 135]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=3 rowsB=2)
```

Test #50 (source L181)

```
{{{1}},{{2}},{{3}},{{4}},{{5}}}
Executed lists:
[[[1]]; [[2]]; [[3]]; [[4]]; [[5]]]
 Step 1: A(1, 1) x B(1, 1)
  My-code result: [[2]]
  Expected (strict): [[2]]
 Step 2: A(1, 1) x B(1, 1)
  My-code result: [[6]]
  Expected (strict): [[6]]
 Step 3: A(1, 1) x B(1, 1)
  My-code result: [[24]]
  Expected (strict): [[24]]
 Step 4: A(1, 1) x B(1, 1)
  My-code result: [[120]]
  Expected (strict): [[120]]
```

Test #51 (source L183)

```
{{{},{1,2}},{{3},{4,5}}}
Executed lists:
[[[],[1, 2]]; [[3],[4, 5]]]
 Step 1: A(2, 2) x B(2, 2)
  My-code result: [[None, None], [11, 10]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #52 (source L185)

```
{{{1,2,3,4,5},{1,2,3,4,5},{1,2,3,4,5}},{{1,2},{3,4},{5,6},{7,8},{9,10}}} Executed lists:
[[[1, 2, 3, 4, 5],[1, 2, 3, 4, 5],[1, 2, 3, 4, 5]]; [[1, 2],[3, 4],[5, 6],[7, 8],[9, 10]]]
 Step 1: A(3, 5) x B(5, 2)
  My-code result: [[95, 110], [95, 110], [95, 110]]
  Expected (strict): [[95, 110], [95, 110], [95, 110]]
```

Test #53 (source L187)

```
{{{1,2},{3}},{{4,5},{6,7},{8,9}}}
Executed lists:
[[[1, 2],[3]]; [[4, 5],[6, 7],[8, 9]]]
 Step 1: A(2, 2) x B(3, 2)
  My-code result: [[16, 19], [12, 15]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=2 rowsB=3)
```

Test #54 (source L189)

```
{{{1,2},{3,4}},{{5,6,7},{8,9,10}}}
Executed lists:
[[[1, 2],[3, 4]]; [[5, 6, 7],[8, 9, 10]]]
 Step 1: A(2, 2) x B(2, 3)
  My-code result: [[21, 24, 27], [47, 54, 61]]
  Expected (strict): [[21, 24, 27], [47, 54, 61]]
```

Test #55 (source L191)

```
{{{1,2}},{{}},{{3,4}}}
Executed lists:
[[[1, 2]]; [[]]; [[3, 4]]]
 Step 1: A(1, 2) x B(1, 0)
  My-code result: [[]]   Expected (strict): Invalid/Discarded
(Incompatible dims colsA=2 rowsB=1)
 Step 2: A(1, 0) x B(1, 2)
  My-code result: [[0, 0]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=0 rowsB=1)
```

Test #56 (source L193)

```
{{{1,2,3},{4,5}},{{6},{7},{8}}}
Executed lists:
[[[1, 2, 3],[4, 5]]; [[6],[7],[8]]]
 Step 1: A(2, 3) x B(3, 1)
  My-code result: [[44], [59]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #57 (source L195)

```
{{{1,null,3,4},{5,6,null,8}},{{9,10},{11,12},{13,14},{15,16}}} Executed
lists: [[[1, None, 3, 4],[5, 6, None, 8]]; [[9, 10],[11, 12],[13,
14],[15, 16]]]
 Step 1: A(2, 4) x B(4, 2)
  My-code result: [[108, 116], [231, 250]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #58 (source L197)

```
{{{1,2}},{{3,4,5}},{{6,7}}}
Executed lists:
[[[1, 2]]; [[3, 4, 5]]; [[6, 7]]]
 Step 1: A(1, 2) x B(1, 3)
  My-code result: [[3, 4, 5]]   Expected (strict): Invalid/Discarded
(Incompatible dims colsA=2 rowsB=1)
 Step 2: A(1, 3) x B(1, 2)
  My-code result: [[18, 21]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=3 rowsB=1)
```

Test #59 (source L199)

```
{{{5}},{{6}},{{7}}}
Executed lists:
[[[5]]; [[6]]; [[7]]]
 Step 1: A(1, 1) x B(1, 1)
  My-code result: [[30]]
  Expected (strict): [[30]]
 Step 2: A(1, 1) x B(1, 1)
  My-code result: [[210]]
  Expected (strict): [[210]]
```

Test #60 (source L201)

```
{{{0,0,0},{null,0}},{{0},{0},{0}}}
Executed lists:
[[[0, 0, 0],[None, 0]]; [[0],[0],[0]]]
 Step 1: A(2, 3) x B(3, 1)
  My-code result: [[0], [0]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #61 (source L203)

```
{{{1,2,3,4}},{{1},{null},{3},{4}}}
Executed lists:
[[[1, 2, 3, 4]]; [[1],[None],[3],[4]]]
 Step 1: A(1, 4) x B(4, 1)
  My-code result: [[26]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing B element)
```

Test #62 (source L205)

```
{{{1,2},{3,4,5},{6}},{{7},{8},{9}}}
Executed lists:
[[[1, 2],[3, 4, 5],[6]]; [[7],[8],[9]]]
 Step 1: A(3, 3) x B(3, 1)
  My-code result: [[23], [98], [42]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #63 (source L207)

```
{{{10,11,12},{13,14,15}},{{2,3},{4,5},{6,7}},{{1},{2}}} Executed
lists: [[[10, 11, 12],[13, 14, 15]]; [[2, 3],[4, 5],[6, 7]];
[[1],[2]]]
 Step 1: A(2, 3) x B(3, 2)
  My-code result: [[136, 169], [172, 214]]
  Expected (strict): [[136, 169], [172, 214]]
 Step 2: A(2, 2) x B(2, 1)
  My-code result: [[474], [600]]
  Expected (strict): [[474], [600]]
```

Test #64 (source L209)

```
{{{1,2}},{{},{}},{{3,4}}}
Executed lists:
[[[1, 2]]; [[],[]]; [[3, 4]]]
 Step 1: A(1, 2) x B(2, 0)
  My-code result: [[]]
  Expected (strict): [[]]
 Step 2: A(1, 0) x B(1, 2)
  My-code result: [[0, 0]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=0 rowsB=1)
```

Test #65 (source L211)

```
{{{1,2,3,4},{5,6,7,8},{9,10,11,12},{13,14,15,16}},{{16,15,14,13},{12,11,10,9},{8,7,6,5},{4,3,2,1}}} Executed lists: [[[1, 2, 3, 4],[5, 6, 7, 8],[9, 10, 11, 12],[13, 14, 15, 16]]; [[16, 15, 14, 13],[12, 11, 10, 9],[8, 7, 6, 5],[4, 3, 2, 1]]]
 Step 1: A(4, 4) x B(4, 4)
  My-code result: [[80, 70, 60, 50], [240, 214, 188, 162], [400, 358, 316, 274], [560, 502, 444, 386]]
  Expected (strict): [[80, 70, 60, 50], [240, 214, 188, 162], [400, 358, 316, 274], [560, 502, 444, 386]]
```

Test #66 (source L213)

```
{{{1,2,3},{},{4,5}},{{6},{7,8},{9,10,11}}}
Executed lists: [[[1, 2, 3],[],[4, 5]]; [[6],[7,
8],[9, 10, 11]]]
 Step 1: A(3, 3) x B(3, 3)
  My-code result: [[47, 46, 33], [None, None, None], [59, 40, None]]
  Expected (strict): Invalid/Discarded (Invalid/Discarded due to missing A element)
```

Test #67 (source L215)

```
{{{1,2,3},{4,5,6}},{{7},{8},{9}}}
Executed lists:
[[[1, 2, 3],[4, 5, 6]]; [[7],[8],[9]]]
 Step 1: A(2, 3) x B(3, 1)
  My-code result: [[50], [122]]
  Expected (strict): [[50], [122]]
```

Test #68 (source L217)

```
{{{3,1,8,null,0}},{{9}}}
Executed lists:
[[[3, 1, 8, None, 0]]; [[9]]]
 Step 1: A(1, 5) x B(1, 1)
  My-code result: [[27]]
  Expected (strict): Invalid/Discarded (Incompatible dims colsA=5 rowsB=1)
```