

Brute Force

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class Tester {

    public static int[][] multiply(int arr1[][], int arr2[][]) {

        int n = arr1.length; // assuming arr1 and arr2 are square matrices of the same size
        int[][] result =
            new int[n][n];

        // Brute force matrix multiplication
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                for (int k = 0; k < n; k++) {
                    result[i][j] += arr1[i][k] * arr2[k][j];
                }
            }
        }

        return result;
    }

    public static void main(String[] args) {
        int
            arr1[][] = { { 2, 4 }, { 1, 4 } };
            int arr2[][] = { { 1, 4 }, { 1, 3 } };

            int[][] arr3 = multiply(arr1, arr2);

            // Printing the resulting matrix arr3
    }
}
```

```
for (int i = 0; i < arr3.length; i++) { for
    (int j = 0; j < arr3.length; j++) {
        System.out.print(arr3[i][j] + " ");
    }
    System.out.println();
}
}
```

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6 20
5 16
```