

```

process worker[i = 0 to n-1] {
    double a[n];      # row i of matrix a
    double b[n];      # one column of matrix b
    double c[n];      # row i of matrix c
    double sum = 0.0; # storage for inner products
    int nextCol = i;  # next column of results
    receive row i of matrix a and column i of matrix b;
    # compute c[i,i] = a[i,*] × b[* ,i]
    for [k = 0 to n-1]
        sum = sum + a[k] * b[k];
    c[nextCol] = sum;
    # circulate columns and compute rest of c[i,*]
    for [j = 1 to n-1] {
        send my column of b to the next worker;
        receive a new column of b from the previous worker;
        sum = 0.0;
        for [k = 0 to n-1]
            sum = sum + a[k] * b[k];
        if (nextCol == 0)
            nextCol = n-1;
        else
            nextCol = nextCol-1;
        c[nextCol] = sum;
    }
    send result vector c to coordinator process;
}

```

Matrix Multiplication Using a Circular Pipeline

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