
Scalar product

P71310_en

The scalar product of two vectors $u = (u_0, \dots, u_{n-1})$ and $v = (v_0, \dots, v_{n-1})$ is $\sum_{i=0}^{n-1} u_i v_i$.

Write a function that returns the scalar product of u and v .

Interface

C++	<code>double scalar_product (const vector<double>& u, const vector<double>& v);</code>
C	<code>double scalar_product (int n, double u[n], double v[n]);</code>
Java	<code>public static double scalarProduct(double[] u, double[] v);</code>
Python	<code>scalar_product (u, v) # returns float</code>
MyPy	<code>scalar_product (u: list [float], v: list [float]) → float</code>

Precondition

The vectors u and v have the same size.

Observation

You only need to submit the required procedure; your main program will be ignored.

Problem information

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