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## Scalar product

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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&lt;double&gt;&amp; u, const vector&lt;double&gt;&amp; 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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