

The **stdarg.h** header defines a variable type **va\_list** and three macros which can be used to get the arguments in a function when the number of arguments are not known i.e. variable number of arguments.

A function of variable arguments is defined with the ellipsis , ... at the end of the parameter list.

## Library Variables

Following is the variable type defined in the header `stdarg.h` –

S.N.	Variable & Description
1	<b>va_list</b>  This is a type suitable for holding information needed by the three macros <b>va_start</b> , <b>va_arg</b> and <b>va_end</b> .

## Library Macros

Following are the macros defined in the header `stdarg.h` –

S.N.	Macro & Description
1	<a href="#"><code>void va_start(va_list ap, last_arg)</code></a>  This macro initializes <b>ap</b> variable to be used with the <b>va_arg</b> and <b>va_end</b> macros. The <b>last_arg</b> is the last known fixed argument being passed to the function i.e. the argument before the ellipsis.
2	<a href="#"><code>type va_arg(va_list ap, type)</code></a>  This macro retrieves the next argument in the parameter list of the function with type <b>type</b> .
3	<a href="#"><code>void va_end(va_list ap)</code></a>  This macro allows a function with variable arguments which used the <b>va_start</b> macro to return. If <b>va_end</b> is not called before returning from the function, the result is undefined.