

Register Number	Alternative Name	Description
0	zero	the value 0
1	\$at	(assembler temporary) reserved by the assembler
2-3	\$v0 - \$v1	(values) from expression evaluation and function results
4-7	\$a0 - \$a3	(arguments) First four parameters for subroutine. Not preserved across procedure calls
8-15	\$t0 - \$t7	(temporaries) Caller saved if needed. Subroutines can use w/out saving. Not preserved across procedure calls
16-23	\$s0 - \$s7	(saved values) - Callee saved. A subroutine using one of these must save original and restore it before exiting. Preserved across procedure calls
24-25	\$t8 - \$t9	(temporaries) Caller saved if needed. Subroutines can use w/out saving. These are in addition to \$t0 - \$t7 above. Not preserved across procedure calls.
26-27	\$k0 - \$k1	reserved for use by the interrupt/trap handler
28	\$gp	global pointer . Points to the middle of the 64K block of memory in the static data segment.
29	\$sp	stack pointer Points to last location on the stack.
30	\$s8/\$fp	saved value / frame pointer Preserved across procedure calls
31	\$ra	return address

Service	Code in \$v0	Arguments	Results
print_int	1	\$a0 = integer to be printed	
print_float	2	\$f12 = float to be printed	
print_double	3	\$f12 = double to be printed	
print_string	4	\$a0 = address of string in memory	
read_int	5		integer returned in \$v0
read_float	6		float returned in \$v0
read_double	7		double returned in \$v0
read_string	8	\$a0 = memory address of string input buffer \$a1 = length of string buffer (n)	
sbrk	9	\$a0 = amount	address in \$v0
exit	10		
print char	11	\$a0 = character to print	
read char	12		\$v0 contains char read