

Instr	Hex	Bin	Code	Instr	Hex	Bin	Code
add	0/20	100000	op rd, rs, rt	addi	8	001000	op rt, rs, imm <sub>2s</sub>
sub	0/22	100010		ori	4	000100	op rt, rs, imm
and	0/24	100100		andi	C	001100	
or	0/25	100101		beq	4	000100	op rs, rt, label
nor	0/27	100111		bne	5	000101	
slt	0/2A	101010		sb	28	101000	op rt imm(rs)
sll	0/0	000000	op rd, rt, shamt (rs = 0)	sw	2B	101011	
srl	0/2	000010		lw	23	100011	
				lui	F	001111	lui rt imm (rs=0)
slti	a	001010	slti rt, rs, imm <sub>2s</sub>	j	2	000010	j addr

DEC	BIN	DEC	BIN	HEX
0	0000	8	1000	8
1	0001	9	1001	9
2	0010	10	1010	A
3	0011	11	1011	B
4	0100	12	1100	C
5	0101	13	1101	D
6	0110	14	1110	E
7	0111	15	1111	F

NAME	NUMBER	USE
\$zero	0	The Constant Value 0
\$at	1	Assembler Temporary
\$v0-\$v1	2-3	Values for Function Results and Expression Evaluation
\$a0-\$a3	4-7	Arguments
\$t0-\$t7	8-15	Temporaries
\$s0-\$s7	16-23	Saved Temporaries
\$t8-\$t9	24-25	Temporaries
\$k0-\$k1	26-27	Reserved for OS Kernel
\$gp	28	Global Pointer
\$sp	29	Stack Pointer
\$fp	30	Frame Pointer
\$ra	31	Return Address

### MIPS

op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----

op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)
----	--	--	----	-	-----

### IEEE-754

+- (1)	Exponent (+127, 8)	Mantissa (23, right padded)
--	-----	-----
+- (1)	Exponent (+127, 8)	Mantissa (23, right padded)
--	-----	-----
+- (1)	Exponent (+127, 8)	Mantissa (23, right padded)
--	-----	-----

(whole numbers divide by 2, LSB -> MSB)

(fractions multiply by 2, MSB -> LSB)

			12					12					12		
1			13			1		13			1		13		
2			14			2		14			2		14		
3			15			3		15			3		15		
4			16			4		16			4		16		
5			17			5		17			5		17		
6			18			6		18			6		18		
7			19			7		19			7		19		
8			20			8		20			8		20		
9			21			9		21			9		21		
10			22			10		22			10		22		
11			23			11		23			11		23		

### Jump

op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)	J
----	--	--	----	-	-----	00
PC+4	----					
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)	J
----	--	--	----	-	-----	00
PC+4	----					
op (6)	rs (5)	rt (5)	rd (5)	shamt (5)	func (6)	J
----	--	--	----	-	-----	00
PC+4	----					