Index of Instructions

Instruction	Binary Opcode	Type	Validation	Execution
unreachable	0x00	$[t_1^*] \to [t_2^*]$	validation	execution
nop	0x01	$[] \to []$	validation	execution
block $[t^?]$	0x02	$[] \to [t^*]$	validation	execution
loop $[t^?]$	0x03	$[] \to [t^*]$	validation	execution
if $[t^?]$	0x04	$[] \to [t^*]$	validation	execution
else	0x05			
(reserved)	0x06			
(reserved)	0x07			
(reserved)	0x08			
(reserved)	0x09			
(reserved)	0x0A			
end	0x0B			
br l	0x0C	$[t_1^* \; t^?] \to [t_2^*]$	validation	execution
br_if l	0x0D	$[t^? \; \text{i32}] \to [t^?]$	validation	execution
br_table $l^* \; l$	0x0E	$[t_1^* \; t^? \; \text{i32}] \to [t_2^*]$	validation	execution
return	0x0F	$[t_1^* \; t^?] \to [t_2^*]$	validation	execution
call x	0x10	$[t_1^*] \to [t_2^*]$	validation	execution
call_indirect x	0x11	$[t_1^* \; \text{i32}] \to [t_2^*]$	validation	execution
(reserved)	0x12			
(reserved)	0x13			
(reserved)	0x14			
(reserved)	0x15			
(reserved)	0x16			
(reserved)	0x17			
(reserved)	0x18			
(reserved)	0x19			
drop	0x1A	$[t] \to []$	validation	execution
select	0x1B	$[t \; t \; \text{i32}] \to [t]$	validation	execution
(reserved)	0x1C			
(reserved)	0x1D			
(reserved)	0x1E			
(reserved)	0x1F			
get_local x	0x20	$[] \to [t]$	validation	execution
set_local x	0x21	$[t] \to []$	validation	execution
tee_local x	0x22	$[t] \to [t]$	validation	execution
get_global x	0x23	$[] \to [t]$	validation	execution
set_global x	0x24	$[t] \to []$	validation	execution
(reserved)	0x25			
(reserved)	0x26			
(reserved)	0x27			
i32.load *memarg*	0x28	[i32] → [i32]	validation	execution
i64.load *memarg*	0x29	[i32] → [i64]	validation	execution
f32.load *memarg*	0x2A	[i32] → [f32]	validation	execution
f64.load *memarg*	0x2B	[i32] → [f64]	validation	execution
i32.load8_s *memarg*	0x2C	[i32] → [i32]	validation	execution
i32.load8_u *memarg*	0x2D	[i32] → [i32]	validation	execution
i32.load16_s *memarg*	0x2E	[i32] → [i32]	validation	execution
i32.load16_u *memarg*	0x2F	[i32] → [i32]	validation	execution
i64.load8_s *memarg*	0x30	[i32] → [i64]	validation	execution
i64.load8_u *memarg*	0x31	[i32] → [i64]	validation	execution
i64.load16_s *memarg*	0x32	[i32] → [i64]	validation	execution
i64.load16_u *memarg*	0x33	[i32] → [i64]	validation	execution
i64.load32_s *memarg*	0x34	[i32] → [i64]	validation	execution
i64.load32_u *memarg*	0x35	[i32] → [i64]	validation	execution
i32.store *memarg*	0x36	[i32 i32] → []	validation	execution
i64.store *memarg*	0x37	[i32 i64] → []	validation	execution

Instruction	Binary Opcode	Type	Validation	Execution
f32. store *memarg*	0x38	[i32 f32] → []	validation	execution
f64. store *memarg*	0x39	[i32 f64] → []	validation	execution
i32. store8 *memarg*	0x3A	[i32 i32] → []	validation	execution
i32. store16 *memarg*	0x3B	[i32 i32] → []	validation	execution
i64. store8 *memarg*	0x3C	[i32 i64] → []	validation	execution
i64. store16 *memarg*	0x3D	[i32 i64] → []	validation	execution
i64. store32 *memarg*	0x3E	[i32 i64] → []	validation	execution
memory. size	0x3F	[] → [i32]	validation	execution
memory. grow	0x40	[i32] → [i32]	validation	execution
i32. const *i32*	0x41	[] → [i32]	validation	execution
i64. const *i64*	0x42	[] → [i64]	validation	execution
f32. const *f32*	0x43	[] → [f32]	validation	execution
f64. const *f64*	0x44	[] → [f64]	validation	execution
i32. eqz	0x45	[i32] → [i32]	validation	execution, operator
i32. eq	0x46	[i32 i32] → [i32]	validation	execution, operator
i32. ne	0x47	[i32 i32] → [i32]	validation	execution, operator
i32. lt_s	0x48	[i32 i32] → [i32]	validation	execution, operator
i32. lt_u	0x49	[i32 i32] → [i32]	validation	execution, operator
i32. gt_s	0x4A	[i32 i32] → [i32]	validation	execution, operator
i32. gt_u	0x4B	[i32 i32] → [i32]	validation	execution, operator
i32. le_s	0x4C	[i32 i32] → [i32]	validation	execution, operator
i32. le_u	0x4D	[i32 i32] → [i32]	validation	execution, operator
i32. ge_s	0x4E	[i32 i32] → [i32]	validation	execution, operator
i32. ge_u	0x4F	[i32 i32] → [i32]	validation	execution, operator
i64. eqz	0x50	[i64] → [i32]	validation	execution, operator
i64. eq	0x51	[i64 i64] → [i32]	validation	execution, operator
i64. ne	0x52	[i64 i64] → [i32]	validation	execution, operator
i64. lt_s	0x53	[i64 i64] → [i32]	validation	execution, operator
i64. lt_u	0x54	[i64 i64] → [i32]	validation	execution, operator
i64. gt_s	0x55	[i64 i64] → [i32]	validation	execution, operator
i64. gt_u	0x56	[i64 i64] → [i32]	validation	execution, operator
i64. le_s	0x57	[i64 i64] → [i32]	validation	execution, operator
i64. le_u	0x58	[i64 i64] → [i32]	validation	execution, operator
i64. ge_s	0x59	[i64 i64] → [i32]	validation	execution, operator
i64. ge_u	0x5A	[i64 i64] → [i32]	validation	execution, operator
f32. eq	0x5B	[f32 f32] → [i32]	validation	execution, operator
f32. ne	0x5C	[f32 f32] → [i32]	validation	execution, operator
f32. lt	0x5D	[f32 f32] → [i32]	validation	execution, operator
f32. gt	0x5E	[f32 f32] → [i32]	validation	execution, operator
f32. le	0x5F	[f32 f32] → [i32]	validation	execution, operator
f32. ge	0x60	[f32 f32] → [i32]	validation	execution, operator
f64. eq	0x61	[f64 f64] → [i32]	validation	execution, operator
f64. ne	0x62	[f64 f64] → [i32]	validation	execution, operator
f64. lt	0x63	[f64 f64] → [i32]	validation	execution, operator
f64. gt	0x64	[f64 f64] → [i32]	validation	execution, operator
f64. le	0x65	[f64 f64] → [i32]	validation	execution, operator
f64. ge	0x66	[f64 f64] → [i32]	validation	execution, operator
i32. clz	0x67	[i32] → [i32]	validation	execution, operator
i32. ctz	0x68	[i32] → [i32]	validation	execution, operator
i32. popcnt	0x69	[i32] → [i32]	validation	execution, operator
i32. add	0x6A	[i32 i32] → [i32]	validation	execution, operator
i32. sub	0x6B	[i32 i32] → [i32]	validation	execution, operator
i32. mul	0x6C	[i32 i32] → [i32]	validation	execution, operator
i32. div_s	0x6D	[i32 i32] → [i32]	validation	execution, operator
i32. div_u	0x6E	[i32 i32] → [i32]	validation	execution, operator
i32. rem_s	0x6F	[i32 i32] → [i32]	validation	execution, operator
i32. rem_u	0x70	[i32 i32] → [i32]	validation	execution, operator
i32. and	0x71	[i32 i32] → [i32]	validation	execution, operator
i32. or	0x72	[i32 i32] → [i32]	validation	execution, operator

Instruction	Binary Opcode	Type	Validation	Execution
i32.xor	0x73	[i32 i32] → [i32]	validation	execution, operator
i32.shl	0x74	[i32 i32] → [i32]	validation	execution, operator
i32.shr_s	0x75	[i32 i32] → [i32]	validation	execution, operator
i32.shr_u	0x76	[i32 i32] → [i32]	validation	execution, operator
i32.rotl	0x77	[i32 i32] → [i32]	validation	execution, operator
i32.rotr	0x78	[i32 i32] → [i32]	validation	execution, operator
i64.clz	0x79	[i64] → [i64]	validation	execution, operator
i64.ctz	0x7A	[i64] → [i64]	validation	execution, operator
i64.popcnt	0x7B	[i64] → [i64]	validation	execution, operator
i64.add	0x7C	[i64 i64] → [i64]	validation	execution, operator
i64.sub	0x7D	[i64 i64] → [i64]	validation	execution, operator
i64.mul	0x7E	[i64 i64] → [i64]	validation	execution, operator
i64.div_s	0x7F	[i64 i64] → [i64]	validation	execution, operator
i64.div_u	0x80	[i64 i64] → [i64]	validation	execution, operator
i64.rem_s	0x81	[i64 i64] → [i64]	validation	execution, operator
i64.rem_u	0x82	[i64 i64] → [i64]	validation	execution, operator
i64.and	0x83	[i64 i64] → [i64]	validation	execution, operator
i64.or	0x84	[i64 i64] → [i64]	validation	execution, operator
i64.xor	0x85	[i64 i64] → [i64]	validation	execution, operator
i64.shl	0x86	[i64 i64] → [i64]	validation	execution, operator
i64.shr_s	0x87	[i64 i64] → [i64]	validation	execution, operator
i64.shr_u	0x88	[i64 i64] → [i64]	validation	execution, operator
i64.rotl	0x89	[i64 i64] → [i64]	validation	execution, operator
i64.rotr	0x8A	[i64 i64] → [i64]	validation	execution, operator
f32.abs	0x8B	[f32] → [f32]	validation	execution, operator
f32.neg	0x8C	[f32] → [f32]	validation	execution, operator
f32.ceil	0x8D	[f32] → [f32]	validation	execution, operator
f32.floor	0x8E	[f32] → [f32]	validation	execution, operator
f32.trunc	0x8F	[f32] → [f32]	validation	execution, operator
f32.nearest	0x90	[f32] → [f32]	validation	execution, operator
f32.sqrt	0x91	[f32] → [f32]	validation	execution, operator
f32.add	0x92	[f32 f32] → [f32]	validation	execution, operator
f32.sub	0x93	[f32 f32] → [f32]	validation	execution, operator
f32.mul	0x94	[f32 f32] → [f32]	validation	execution, operator
f32.div	0x95	[f32 f32] → [f32]	validation	execution, operator
f32.min	0x96	[f32 f32] → [f32]	validation	execution, operator
f32.max	0x97	[f32 f32] → [f32]	validation	execution, operator
f32.copysign	0x98	[f32 f32] → [f32]	validation	execution, operator
f64.abs	0x99	[f64] → [f64]	validation	execution, operator
f64.neg	0x9A	[f64] → [f64]	validation	execution, operator
f64.ceil	0x9B	[f64] → [f64]	validation	execution, operator
f64.floor	0x9C	[f64] → [f64]	validation	execution, operator
f64.trunc	0x9D	[f64] → [f64]	validation	execution, operator
f64.nearest	0x9E	[f64] → [f64]	validation	execution, operator
f64.sqrt	0x9F	[f64] → [f64]	validation	execution, operator
f64.add	0xA0	[f64 f64] → [f64]	validation	execution, operator
f64.sub	0xA1	[f64 f64] → [f64]	validation	execution, operator
f64.mul	0xA2	[f64 f64] → [f64]	validation	execution, operator
f64.div	0xA3	[f64 f64] → [f64]	validation	execution, operator
f64.min	0xA4	[f64 f64] → [f64]	validation	execution, operator
f64.max	0xA5	[f64 f64] → [f64]	validation	execution, operator
f64.copysign	0xA6	[f64 f64] → [f64]	validation	execution, operator
i32.wrap/i64	0xA7	[i64] → [i32]	validation	execution, operator
i32.trunc_s/f32	0xA8	[f32] → [i32]	validation	execution, operator
i32.trunc_u/f32	0xA9	[f32] → [i32]	validation	execution, operator
i32.trunc_s/f64	0xAA	[f64] → [i32]	validation	execution, operator
i32.trunc_u/f64	0xAB	[f64] → [i32]	validation	execution, operator
i64.extend_s/i32	0xAC	[i32] → [i64]	validation	execution, operator
i64.extend_u/i32	0xAD	[i32] → [i64]	validation	execution, operator

Instruction	Binary Opcode	Type	Validation	Execution
i64.trunc_s/f32	0xAE	[f32] → [i64]	validation	execution, operator
i64.trunc_u/f32	0xAF	[f32] → [i64]	validation	execution, operator
i64.trunc_s/f64	0xB0	[f64] → [i64]	validation	execution, operator
i64.trunc_u/f64	0xB1	[f64] → [i64]	validation	execution, operator
f32.convert_s/i32	0xB2	[i32] → [f32]	validation	execution, operator
f32.convert_u/i32	0xB3	[i32] → [f32]	validation	execution, operator
f32.convert_s/i64	0xB4	[i64] → [f32]	validation	execution, operator
f32.convert_u/i64	0xB5	[i64] → [f32]	validation	execution, operator
f32.demote/f64	0xB6	[f64] → [f32]	validation	execution, operator
f64.convert_s/i32	0xB7	[i32] → [f64]	validation	execution, operator
f64.convert_u/i32	0xB8	[i32] → [f64]	validation	execution, operator
f64.convert_s/i64	0xB9	[i64] → [f64]	validation	execution, operator
f64.convert_u/i64	0xBA	[i64] → [f64]	validation	execution, operator
f64.promote/f32	0xBB	[f32] → [f64]	validation	execution, operator
i32.reinterpret/f32	0xBC	[f32] → [i32]	validation	execution, operator
i64.reinterpret/f64	0xBD	[f64] → [i64]	validation	execution, operator
f32.reinterpret/i32	0xBE	[i32] → [f32]	validation	execution, operator
f64.reinterpret/i64	0xBF	[i64] → [f64]	validation	execution, operator