

Value	Representation (bits)		Representation	
	31-bit, 2's complement number	tag bit (1=num, 0=bool)	hex	decimal
9	0000 0000 0000 0000 0000 0000 0001 0011		0x000000 13	19
-2	1111 1111 1111 1111 1111 1111 1111 1101		0xFFFFFFF D	-3
33	0000 0000 0000 0000 0000 0000 _____		0x000000__	__
true	1111 1111 1111 1111 1111 1111 1111 1110		0xFFFFFFF E	-2
false	0111 1111 1111 1111 1111 1111 1111 1110		0x7FFFFFF E	214...
	<div> <div></div> <div>30 bits for future value representations!</div> </div>			

```

let rec e_to_is (e : expr) (si : int) (env : tenv) =
  match e with
  | ENum(n) ->

  | EBool(b) (* b is true or false *) ->

```

(Assume x at esp-4, which contains 0x0000013)
(Follow-up: What if esp-4 contained 0x7FFFFFFE?)

(add1 x)

In EAX at end?

(Assume x at esp-4, which contains 0x0000013)
(Assume y at esp-8, which contains 0xFFFFFFF D)

(> x y)

In EAX at end?

Example

cmp eax, ebx

jle done

and arg1, arg2 – bitwise and the args, store in arg1

or arg1, arg2 – bitwise or the args, store in arg1

If the contents of EAX are less than or equal to the contents of EBX, jump to the label *done*.

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 (Follow-up: What if esp-4 contained 0x7FFFFFFE?)

(add1 x)

In EAX at end?

(Assume x at esp-4, which contains 0x0000013)
 (Assume y at esp-8, which contains 0xFFFFFFFF)

(> x y)

In EAX at end?

Example

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| true/false
| 30 bits for future value representations!

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