



**C\*Integers and Printers**

- C\* integers are unsigned 64-bit integers
- In C\* there are five arithmetic operators: +, −, \*, /, %
- And six comparison operators: ==, !=, <, <=, >, >=
- C\* pointers are 64-bit pointers to C\* integers
- And pointer arithmetic: +, −

# C\* versus C Integer Literals

- C\* integer literals are unsigned 64-bit
- C integer literals are signed 32-bit
- For example,  $1 / -1 == 0$  in C\* but  $1 / -1 == -1$  in C
- And,  $1 \% -1 == 1$  in C\* but  $1 \% -1 == 0$  in C
- Also,  $1 < -1$  and  $1 \leq -1$  hold in C\* but  $1 > -1$  and  $1 \geq -1$  do not whereas the opposite is true in C
- The semantics of  $/$  and  $\%$  as well as  $<$ ,  $\leq$ ,  $>$ , and  $\geq$  is different for signed and unsigned integers!

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