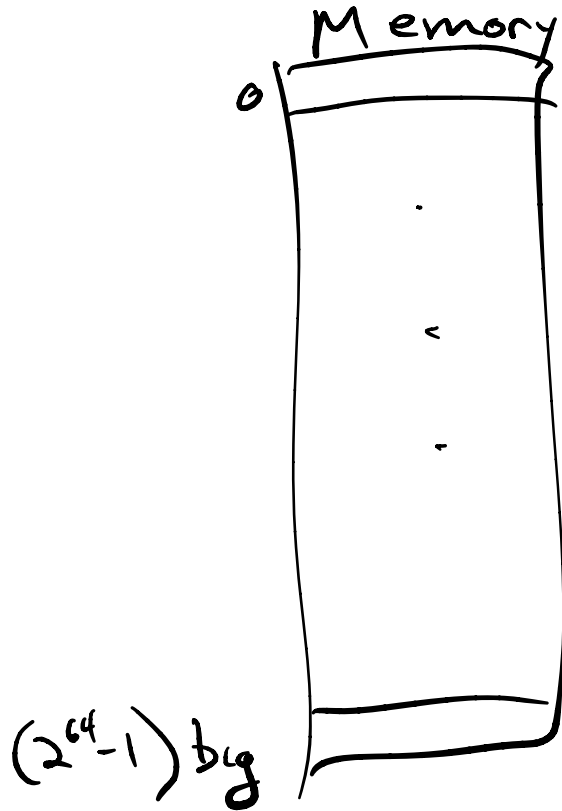


CS 208

W, 31 Jan 2024

Assembly language architecture



...

↑
where the computation happens

rax

64 bits



32

32

eax

16

ax

high-order
+
low-order
bytes
of
ax

Registers have conventional uses

rax/eax/ax/... — return value

rdi/edi/... — 1st parameter

rsi/esi/... — 2nd

⋮

$f(5, 2)$
edi esi

cmpl x, y
computes
 $y - x$ if set
flag

eax | 2

eflags | 0

= 1 if previous
computation
had neg result
0 otherwise

cmpl 2, 5 puts 0