

# movq Operand Combinations

|      | Source | Dest | Src, Dest           | C Analog       |
|------|--------|------|---------------------|----------------|
| movq | Imm    | Reg  | movq \$0x4, %rax    | var_a = 0x4;   |
|      |        | Mem  | movq \$-147, (%rax) | *p_a = -147;   |
|      | Reg    | Reg  | movq %rax, %rdx     | var_d = var_a; |
|      |        | Mem  | movq %rax, (%rdx)   | *p_d = var_a;  |
|      | Mem    | Reg  | movq (%rax), %rdx   | var_d = *p_a;  |

**Cannot do memory-memory transfer with a single instruction**

*How would you do it?*