Intro to Computer operations and their operands

- Computer Instructions
 - **Computer instructions** can **perform** the following **operations**:
 - Arithmetic operations (e.g.: add, subtract, multiply, divide)
 - **Compare** 2 values
 - Logical operations (e.g.: and, or, not)
 - Transfer data
 - Branching/jumping to some location in the program

• Operands

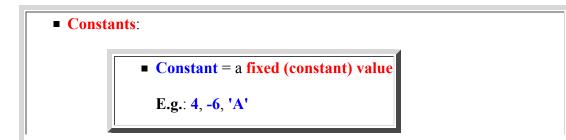
• Operands:

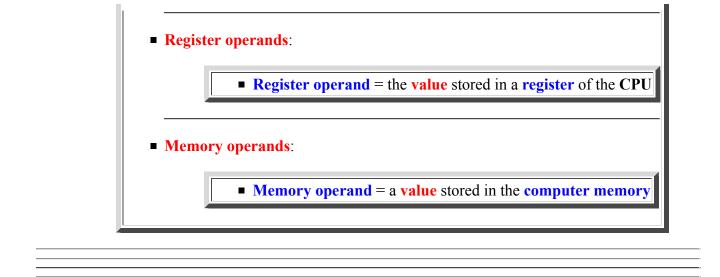
Operands = the values used in a computer instruction/operation

- A M68000 instruction can have:
 - No operands
 1 operand
 2 operands

• Some CPUs has machine instructions that takes 3 operands

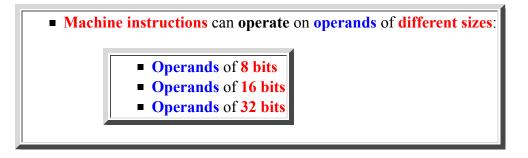
- Types of operands
 - All computer instructions uses the following **3** types of operands:





• Size of operands

• Fact:



• Very important fact:

Machine instructions can *only* operate on source operands that are the *same* size !!!

Example:

