	advantages	disadvantages
Pass by value	It copies the value to protect the original data	High cost
Pass by pointers	• Can use dynamic memory AKA heap • Use new and delete to store values in dynamic memory	• Need to be dereferenced. • Limited arithmetic operations • Generally, less safe • More likely to be misused, and they can be very dangerous.
Pass by references	• Avoid copying • Avoid modification • Modify a variable in a function • Original data could be changed (only if we want to change the original data as well on purpose) • No copy overhead	• Original data could be changed (not on purpose) • Cannot be reassigned. • Cannot be NULL. • References can become invalid • Must be initialized once defined. • Can be misused, but less likely than pointers
Pass by const references	• Original data cannot be changed. • Avoid copying • Avoid modification • Modify a variable in a function	• Cannot be reassigned. • Cannot be NULL. • References can become invalid • Must be initialized once defined.